

The  
**CHEMIST AND DRUGGIST**

for RETAILER — WHOLESALER — MANUFACTURER

OCTOBER 6, 1951

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TIME TO DISPLAY

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Aqueous dextrose base — q.s.

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MIDDLESEX



# The CHEMIST AND DRUGGIST

for RETAILER—WHOLESALE—MANUFACTURER

OCTOBER 6, 1951

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Volume CLVI

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## NEWS OF THE WEEK

### **Further Restriction on Cellulose Film.**

The list of uses to which cellulose film may not be put has been amended from October 6 to include packaging of beverages with a glucose base.

**Condensed Milk Prices.**—The Minister of Food amended on September 28 the Condensed Milk Order, 1951, so as to increase the maximum selling prices of condensed milk from October 1.

**N.H.S. in September 1950.**—Figures recently issued by the Joint Pricing Committee for England show that during September 1950, 15,467,430 prescriptions were dispensed in England at a cost of £2,368,606.

**N.H.S. Amendments.**—Under an Order (S.I., 1951, No. 1695) issued by the Minister of Health and effective from October 1, Executive Councils are no longer required to circulate pharmaceutical lists to medical practitioners, and when a doctor withdraws from the medical list his patients are allowed only fourteen days in which to find a new doctor.

**Veterinary Congress.**—The annual congress of the National Veterinary Medical Association opened at Eastbourne on September 26. The president (Mr. S. F. J. Hodgman, director of the Animal Health Trust Canine Research Station, Kennett, nr. Newmarket) made reference to the medical and surgical advances that had been made in veterinary science, and called for greater publicity to be given to the work of the profession.

**Key Industry Duty Exemptions.**—The Treasury has made an Order exempting the following articles from Key Industry Duty for the period October 5, 1951, to February 19, 1952:—Acenaphthene, amyl-oacaine hydrochloride, ethyl orthoformate, hexachloroethane, *p*-nitrobenzoic acid, phenolphthalein, phenyl-2-naphthylamine, phenylmercury acetate, R. titanium oxide, *o*-toluidine. The Order is published as S.I. 1951, No. 1728.

**New Plant Steps Up Output.**—A six-fold increase in the output per girl hour has resulted from the installation of auto-

matic packing equipment in the Farex packing section of Glaxo Laboratories, Ltd., Greenford. The new plant requires a team of not more than five operators, for twice the output of the fifteen who operated the previous semi automatic system. The displaced staff have been transferred to other operations, including streptomycin filling. From storage hoppers the material passes by gravity feed through vibrating screens to the automatic weighing machines on the packing floor. The machines together weigh at the rate of seventy-two 10-oz. weighings per minute, and the packing machine (picture, p. 459) automatically picks up a paper bag from a magazine, opens it and fills it with 10 oz. of Farex. The filled bag is dropped into its carton, which is then date-stamped and heat-sealed.

**A Soapmaker's Centenary.**—An exhibition arranged for employees of Lever Bros. & Unilever, Ltd., at the company's headquarters, Unilever House, London, to commemorate the centenary of the birth of William Hesketh Lever, opened on September 13 and closed on October 5. The exhibition includes his personal notebooks, showing how meticulous he was in tabulating details of his daily routine, such as his early morning cold bath; distance covered in his daily walk, etc. "A Swiss Village Scene," drawn by Lever at the age of twelve to fourteen, helps to explain his early frustrated aspirations to become an architect. The machine he used when, instead, he entered the family's wholesale grocery business in Bolton, Lancs, and was put to cutting soap, is on view, as is a tablet of soap from the first boiling at Port Sunlight—the eventual realisation of his architectural ambitions. The exhibition also draws attention to Lever's public activities (as Member of Parliament for Wirral in 1906, he introduced the first Old-age Pension Bill and proposed payment for Members of Parliament), and displays typical aphorisms, which are still topical enough: "Let no business man ever be afraid to laugh." "The only sound policy for any government is to legislate for the truest welfare of the workers, not for drones." (Portrait, p. 459.)

**Association of British Pharmaceutical Industry.**—The half-yearly meeting of the Association of British Pharmaceutical Industry, held in Torquay on September 27, was attended by 120 representatives of forty-five member-firms with their ladies,

the president (Mr. J. C. Hanbury) in the chair. Mr. G. Dalrymple, who had recently retired from the chairmanship of Ayrton, Saunders & Co., Ltd., was unanimously elected an honorary member. The Association entertained four guests from France—M. Robert Chivot (chairman of the *Société Anonyme des Laboratoires Pharmaceutiques Corbière*, Paris, and a member of the Central Council of section B of the *Ordre des Pharmaciens*), and M. Robert Midy (vice-president of the *Chambre Syndicale des Fabricants de Produits Pharmaceutiques*), and Mmes. Chivot and Midy. The meeting endorsed a vote of congratulations passed by council to the pharmaceutical team that recently visited the United States, and unanimously agreed that the Association should set up a special committee to examine the report and make recommendations for communal action. A recommendation which the meeting agreed should receive particular attention from the committee was that liquids should be sold by volume instead of by weight. Mr. H. G. Rolfe, B.Sc., Ph.C., F.R.I.C. (leader of the team), accepted an invitation to be chairman of the committee. The meeting discussed a recent reimposition by the Ministry of Food of control on maize starch, maize dextrin, farina (potato starch) and home produced farina dextrin. Other items discussed included publicity for the industry, resale price maintenance, the National Health Service and the system of representation on the Council.

## LOCAL NEWS

**Window Display Prizewinner.**—J. Ingall & Son, chemists, 42 High Street, Ashford, Kent, were awarded third prize for their entry in a window-dressing competition organised by the Ashford Chamber of Trade in connection with the local exposition week, 1851-1951.

**N.H.S. in London.**—The London Pharmaceutical Committee reports that, in the year ended March 31, 1950, 18,301,470 prescriptions were dispensed in the county of London at a cost of £2,693,110. The report also states that during the year ended March 31, 1951, 625 prescription tests were taken by the London Executive Council and that "the standard of accuracy has been maintained."

**Exhibition Visit and Film Show.**—North London Association and Branch spent an evening at the Wellcome Research

Institution on October 2. They visited the Festival "History of Pharmacy" exhibition and Wellcome Museum of Medical Science, and afterwards saw a film strip, "The Wellcome Foundation" and colour sound film, "Foxgloves in Medicine."

**Hereford Chemist Cautioned.** — Herefordshire Executive Council has cautioned a chemist contractor for failing to dispense a prescription "with reasonable accuracy." A test prescription for a nasal douche dispensed by a locum was found, on analysis, to be 16 per cent. deficient in sodium bicarbonate and 22.7 per cent. deficient in borax.

**Rhyl Branch Revived.** — The first pharmaceutical meeting in Rhyl for many years was held on September 18, when Mr. G. H. Hughes (a member of the Pharmaceutical Society's Council) gave an address on "The Supplemental Charter." Mr. Hughes dealt particularly with the proposed enlargement of the benevolent activities of the Society.

**Birkenhead Opening Meeting.** — The first meeting of the session of the Birkenhead and Wirral Pharmacists' Association was held in Birkenhead on September 21, the president (Mr. T. A. Brigham, M.P.S.) in the chair. Mr. W. F. Bushell, M.A., who spoke on "Birkenhead Priory and After," dealt with the town's history from 1500 to the present day. Refreshments and a business meeting followed.

**Health Service Estimates.** — Among Executive Councils' estimates for the year to March 31, 1952, are BIRKENHEAD: Total £439,450, a reduction of £86,500; for the pharmaceutical service, £171,300, an increase of £25,000.—CHESTER: £241,535 (a reduction of about £10,000).—LEEDS: £500,000 less than in the year ending March 31, 1952. A small rise in the cost of pharmaceutical services is expected because of the supplementary payments made to chemists and the additional dispensing fee of one penny per prescription.—SOUTHPORT: £303,900 (a decrease of £84,100, but pharmaceutical service estimates are up by £24,150).

**Prescription Payment Scheme.** — Speaking from the chair at the annual meeting of the Association of Welsh Executive Councils at Colwyn Bay, on September 21, Mr. Obed Roberts suggested that, in order to check "frivolous demands" on the National Health Service, each contributor should be issued with stamps, one to be

affixed to each prescription when taken to a chemist. Beyond a fixed maximum, stamps required by the patient should be paid for.

**Nottingham Trades Exhibition.** — Boots Pure Drug Co., Ltd., were among the main exhibitors at the Nottingham Trades Exhibition held in the Queen's Drive Recreation Ground, Nottingham, September 20-29. Also exhibiting were Pure Products, Ltd., Nottingham. Participating in the stand of the Surgical Appliance Manufacturers' Association, 11 Warser Gate, Nottingham, were Thos. Glover & Sons, Ltd., Carlton; E. Sallis, Ltd., Vernon Works, Basford; Surgical Hosiery Co., Ltd., Russell Street; and J. H. Haywood, Ltd., Warser Gate, Nottingham.

**West Middlesex Activities.** — Student associates of the West Middlesex Branch of the Pharmaceutical Society on September 10 listened to an address by Messrs. B. A. Wills (chairman, British Pharmaceutical Students' Association) and J. A. Box (secretary) on the activities of the Association. The attendance was considered not sufficient to justify forming a junior section of the branch. The first branch meeting of the session was held on September 18, when members were addressed by Messrs. E. Ratcliffe, J. T. Hapstone and J. Anderson Stewart on the functions and problems of the Middlesex Pharmaceutical Committee. The testing scheme was reviewed and day-to-day problems under the National Health Service were dealt with in a question-and-answer session. A refresher course organised in conjunction with the Ealing Technical College started with an excellent attendance on September 25.

**Association's Fiftieth President.** — A reception was given to the members of Hull Chemists' Association and Branch of the Pharmaceutical Society by the Association's fiftieth president (Mr. B. H. C. Newton) and Mrs. Newton, in Hull, on September 27. Mr. Newton's father (Mr. T. H. Newton) was president of the Association in 1921, and the occasion represented the third time in the history of the Association that a second generation had succeeded to the presidency. Mr. Newton referred to changes in the practice of retail pharmacy which had occurred in the past few years. With the advent of the National Health Service, he said, the private prescription

had become a rarity. The trend towards simplification in prescribing and dispensing had decreased the demands upon the pharmacist's ingenuity and skill. That tendency did not, however, mean any diminishing in the importance of the retail pharmacist, whose rôle would be to know more and more pharmacology.

## SPORT

**Golf.**—LONDON CHEMISTS' GOLFING SOCIETY, final meeting of season, Sudbury Golf Club, Wembley, on September 20. Medal competition for a rose bowl (presented by Aspro, Ltd.), J. A. Evans (winner) (24) 71 net; W. A. C. Attwood (18) 74; T. T. Johnson (9) 74; C. H. Maile, (7) 75; R. Poole (9) 76; E. G. Nice (13) 76. Bogey competition for 4711 prize: W. N. Cockburn (winner) (9) -3; J. A. Evans (24) -3; R. Poole (9) -4; W. A. C. Attwood (18) -4; T. T. Johnson (9) -4. Mr. J. S. Walmsley (a director of Aspro, Ltd.), presented the trophy (picture, p. 459) at a ceremony after the competitions.

ULSTER CHEMISTS' GOLFING ASSOCIATION.—Captain's day at Belvoir Park, Belfast, on September 26. Captain's prize won by T. Currie, Shandon Park; runner-up J. McKay, Cliftonville; C. Watt, Bangor, returned best gross score and J. McConnell, Massereene, won consolation prize. Visitors' prizes went to Dr. L. J. Higgins, B. McKenzie and A. Lovesey. At annual business meeting M. J. Jeffers was elected *Captain*; Mr. C. Hall, *Treasurer*; and Mr. W. H. Boyd, *Secretary*. Present at the meeting were Messrs. H. W. Gamble (president, Pharmaceutical Society of Northern Ireland), C. A. Quinn (president, Ulster Chemists' Association). The retiring captain (Mr. J. McRoberts) presented a china cabinet to Mr. Boyd as wedding present from the Association.

MANCHESTER CHEMISTS' GOLFING SOCIETY.—Final match of season at Northenden Golf Club on September 26, between president's and captain's teams, won by captain's team. In the evening prizes won during the season were presented. Captain's prize: E. Rothwell, P. Wynne; Griffiths Hughes trophy: A. D. Macdonald, B. Anderson; Ucal trophy: S. M. McIntosh, E. Rothwell; Hough Hoseason trophy: R. Ogden, P. Wynne; Woolley trophy: R. Demaine, H. Vause; Kerfoot trophy: H. Brindle, A. Rodger; Robinson's prize four-ball Stableford: E. M. McIntosh and C. R. Doherty, H. Brindle and T. Williams; S. Haywards prize: C. Malthouse; Bolton Members' prize: W. E. Phillipson. Officers for the 1952 season are: *Captain*, H. Burlinson; *Secretary*, N. E. Phillipson.

**Cricket.**—The competition during the summer between cricket teams from Bournemouth, Portsmouth and Southampton branches of the Pharmaceutical Society, for the Herbert Ferryman cup, was won by Bournemouth. The cup was presented to Mr. Hammond, captain of Bournemouth, by Mr. Swan of Herbert Ferryman, Ltd., Cobden Bridge, Southampton, during the last match of the season at the County Ground, Southampton, on September 5.

## SCOTTISH NEWS

**Scottish Anti-fire Campaign.**—To draw attention to the need for observing anti-fire precautions in shops and factories which are too small to be subject to inspection under the Factories Act, the Secretary of State for Scotland has had printed for issue 50,000 poster-leaflets. Supplies may be obtained free of charge from the Ministry, St. Andrew's House, Edinburgh, 1.

**New Scottish Association.**—At a meeting of chemists of Banff, Moray and Nairn, at Elgin, Morays, on September 20, it was decided to form an association of pharmacists of the three counties. The meeting elected Mr. D. G. Hughes, Elgin, *President*; Mr. E. Fraser, Buckie, *Vice-president*; and Mr. J. R. Fethney, 59 Grant Street, Burghead, Morays, *Secretary*.

## IRISH NEWS

**Northern Ireland Election Results.**—The four retiring members were successful in the election for four vacancies on the Council of the Pharmaceutical Society of Northern Ireland. The results, announced by the president (Mr. H. W. Gamble) at the annual meeting of the Society held in Belfast on October 1, were:—

WALTER CECIL TATE, Belfast, 373.  
HENRY HUGHES COWZER, Belfast, 361.  
WILLIAM PAUL EWART, Armagh, 339.  
JOHN McGREGOR, Belfast, 332.  
JOHN HENRY RESTRICK, Belfast, 212.  
Messrs. Tate, Cowzer, Ewart and McGregor were declared elected. All except Mr. Ewart are past-presidents of the Society. Messrs. H. F. Moore and P. R. W. Shinner were the scrutineers. The poll was less than 50 per cent.

## OVERSEAS NEWS

**German Photographic Exhibition.**—An international photo and cine exhibition (Photokina) is to be held in Cologne, Germany, April 26 to May 4, 1952.

**Borneo Research Subsidies.**—During the past year grants of £12,000 and £19,300 have been made by the United Kingdom towards research into scrub typhus and malaria in British Borneo. The scrub typhus field unit is based on the Institute for Medical Research, Kuala Lumpur, Malaya. It is working in conjunction with a United States Army medical research unit, which is investigating the use of chloramphenicol, terramycin and other antibiotics.

## TOPICAL REFLECTIONS

### Keeping up to Date

The announcement that a *C. & D.* "refresher" course is to be conducted as part of your service to subscribers (p. 425) is welcome. Few pharmacists in business can spare the time to attend a series of post-graduate lectures or demonstrations. Having the material before them in your weekly issues, they can consult it at any convenient hour. They and others are certain to learn something valuable from what you are providing. This scheme has a natural relation to the subject matter of Mr. A. G. Fishburn's article on pharmaceutical research (pp. 428-29). As Mr. Fishburn points out, "it is unfortunate that many of the most promising of the younger generation have migrated completely into pharmacology, chemistry or bacteriology and their talents have thus been lost to pharmacy." Pharmacy, he adds, "can ill afford to be used as a recruiting ground for other professions." How is the scope of research in pharmacy to be extended so as to become more attractive to students with the requisite knowledge? One of the practical suggestions made by your contributor is that a research worker "might usefully challenge many of the products now available to the clinician in forms which are only partially satisfactory but are accepted as being the best obtainable." In order to do this, the worker might apply to the organic chemist for new auxiliary materials. Many of the newer "synthetic excipients," the author continues, were evolved for meeting requirements in other industries, and their pharmaceutical application came about by accident. This and other ideas in a stimulating article will help post-graduate workers who realise that continued study will repay them.

### Pharmaceutical Formulation

Mr. Fishburn's article begins with a reference to the Symposium Session of the recent Conference, a session devoted to four papers, with discussion, on pharmaceutical formulation. Much can be gathered from these monographs. Two features in them are conspicuous. One is the attention now devoted to the compatibility, incompatibility and effect on storage of antibiotics; the other is the increased study of vehicles for applications to the skin and to wounds. It goes without saying that both subjects are of great importance. A careful reading

of pp. 430-34 enables students to distinguish between results that are provisional and others that may be regarded as definite for present purposes. Pharmacists who have worked, for instance, with various ointment bases for several years, and have become fully conversant with any difficulties of manipulation that may have arisen, may be inclined to regard new bases with suspicion; but that is no reason why those bases should not be tried. The last word on dermal practice is not with the pharmacist who has turned out apparently perfect preparations but with the clinician who has observed their effects when applied. I agree with Mr. Donald W. Hudson's criticism of official and semi-official colouring agents. Our leaders have long been hide-bound in this matter.

### Conducting a Pharmacy

Ideas on the layout and the conduct of a pharmacy are probably impossible to classify: the old tag "quot homines, tot sententiae" is more or less applicable here. Papers like those summarised on pp. 436-38 are helpful to qualified people who are thinking of owning a retail business for the first time, and are also worth study by proprietors of pharmacies who have their own systems. I am with Mr. F. W. Adams in holding that a pharmacy should look like one, so that the average shopper can recognise it at a glance. About fifteen years ago you published a short paragraph to the effect that a customer in a hairdresser's shop, while paying his bill at the counter heard a man near him asking for something for a cold and being told, to his surprise, that he was not in a chemist's shop. The Conference paper on principles was followed by practical hints from Mr. H. T. Thomas. These hints are, as I have indicated, useful in various ways and degrees to the beginner and to the experienced. To take one example, the selection of a hard wood for the runners of shop drawers is advocated. Shopfitters may make it their practice to study this point, but I have no recollection of having seen it in print before. The choice of a floor covering may vary with locality and fashion. Coloured tiles can be effectively arranged, and it will not be long, I suppose, before certain plastic materials are put forward as superior to all others for the purpose referred to.

Xrayser

## NEW COMPANIES

**WHYSALL & SONS, LTD. (P.C.).**—Capital £3,000. To carry on the business of retail and wholesale chemists, etc. George E. Whysall, M.P.S. (permanent), Edwalton, Green Hill, Grantham; Kenneth T. Whysall and Richard E. C. Whysall, M.P.S., directors.

**DAVIES CHEMISTS (THURROCK), LTD. (P.C.).**—Capital £5,000. To carry on the business of chemists, druggists and librarians, etc. Eleazer E. S. Davies, M.P.S., Audrey Brown and William A. Chaplin, directors. R.O.: 79 St. Chads Road, Tilbury, Essex.

**H. GAFFIN, LTD. (P.C.).**—Capital £5,000. To acquire the business of Harold Gaffin, M.P.S., 5 Kingsway Buildings, Kingsway, Manchester, 19 and to carry on the business of chemists, druggists, opticians, etc. Harold Gaffin and Lillie E. Gaffin, directors.

**WALTER A. JACKSON, LTD. (P.C.).**—Registered in Dublin. Capital £5,000. To carry on the business of dealers in and manufacturers of bottles, corks, etc. Walter A. Jackson and Brendan Jackson, 29 Valentia Road, Dublin, subscribers. First directors are not named.

**HALEWOOD CHEMICALS (OVERSEAS), LTD. (P.C.).**—Capital £5,000. To carry on the business of manufacturers and dealers in pharmaceuticals, drugs and chemicals, etc. Gordon J. Pritchard and Margaret Pritchard, directors. R.O.: 118 Cheapside, London E.C.2.

**DUNCAN PARKER, LTD. (P.C.).**—Registered in Dublin. Capital £2,000. To carry on the business of wholesale and retail druggists, etc. Sydney W. Bryan, 126 Castle Avenue, Clontarf, Dublin, and Ailsa Parker, Tavalera Baldyole, co. Dublin, subscribers. First directors are not named.

**A. J. WATKINS (CAMBERLEY), LTD. (P.C.).**—Capital £100. To carry on the business of manufacturers, repairers, and dealers in all kinds and parts of photographic, medical and surgical instruments, etc. Alfred J. Watkins and Ethel M. Watkins, directors. R.O.: Doman Road, Camberley, Surrey.

**PEST - CONTROL (CHEMICALS), LTD. (P.C.).**—Capital £100. To carry on the business of chemists, druggists and advisers in all matters relating to the application of agricultural sciences, etc. W. Ritchie and I. R. Dunnnett, subscribers. First direc-

tors to be appointed. R.O.: Harston, Cambs.

## Company News

**IMPERIAL CHEMICAL INDUSTRIES.**—An interim dividend of 3 per cent. on ordinary stock is declared (same).

**DUBARRY PERFUMERY CO., LTD.**—The company is halving its interim ordinary dividend by paying 7½ per cent. in respect of the year ending December 31.

**MONSANTO CHEMICALS, LTD.**—Mr. T. G. Crane has been elected managing director and Dr. Charles A. Thomas (president, Monsanto Chemical Co., St. Louis, U.S.A.), a director of Monsanto Chemicals (Australia), Ltd.

**GLAXO LABORATORIES, LTD.**—Subject to audit, profits of the Group for the year ended June 30 were £1,365,000 against £1,237,000 for the previous year after providing for all charges including £1,736,000 (£1,162,000) for taxation. A sum of £250,000 (£250,000) is to be placed to replacement reserve; £150,000 (same) to reserve for research; general reserve, £555,464 (£250,000); superannuation, £50,000 (£50,000). A second interim dividend of 7½ per cent. is declared. If the present proposals for the limitation of dividends are confirmed, the distribution for the year will then be the maximum permitted and no final dividend will be recommended. Otherwise a final dividend of 7½ per cent., payable on December 12, will be recommended.

## BUSINESS CHANGES

**MR. H. STEVENS, M.P.S.**, has acquired the business of Mr. J. W. Sampson, Ph.C., High Street, Kirton, Boston, Lincs.

**MR. W. A. HARRISON, M.P.S.**, has taken over the business of Mr. W. R. Dibb, M.P.S., 133 High Street, Wootton Bassett, Wilts.

## Appointments

**MR. W. GLASS** has been appointed sales manager of J. Allen Rubber Co., Ltd., Cheltenham.

**MR. W. A. M. EDWARDS, B.A., B.Sc., F.R.I.C.**, has been appointed purchases controller of Imperial Chemical Industries, Ltd.

**JAMES L. HATRICK & CO. (LONDON), LTD.**, 58 Britton Street, Clerkenwell Road, London, E.C.1, have appointed Mr. R. T. Johnston their representative for the West End of London.

## LEGAL REPORTS

**Conditional Discharge.**—Before the Liverpool stipendiary magistrate on September 28, on charges of stealing £48 from his employers, Boots, Ltd., while manager of the company's shop at 127 London Road, Liverpool, Arnold Vivian Dearden, M.P.S., pleaded guilty but was discharged conditionally for twelve months and ordered to pay the money within one month.

**Pharmacist Court-martialled.**—At an Army court-martial at Glen Parva, Leics, Captain Jack Atkinson, M.P.S., at present serving in the York and Lancaster Regiment, was sentenced to be severely reprimanded, and to lose approximately five years' seniority, after a hearing of five charges alleging false statements in regard to claims for billeting allowances. He was found not guilty on three charges but guilty on the other two charges.

**Absolute Discharge.**—At Old Street, London, magistrates' court on September 29, Alexander Andrew Watson, packer, Tollington Park Road, N.7, was charged with stealing six tablets of soap and other items from his employers, Innoxa (England), Ltd., Balls Pond Road, Islington. He pleaded guilty. A detective-sergeant said that Watson, who was sixty, had not been previously convicted and had served in the 1939-45 and 1914-18 wars. He had lost his job. A representative of the firm spoke of Watson as "our best packer." Watson was given an absolute discharge, ordered to pay £5 5s. costs and allowed a week to pay.

## MINISTRY OF HEALTH REPORT

THE report of the Ministry of Health on the state of public health for the year ended March 31, 1950, published recently (H.M. Stationery Office, price 6s.) includes notes on pharmaceutical developments during 1949. Describing penicillin G as the most clinically active form of penicillin, the report refers to the possibility of a chemical assay, briefly mentions combinations of streptomycin and *p*-aminosalicylic acid, aureomycin, Chloromycetin, antihistamines, vitamin B<sub>12</sub>, cortisone and ACTH. The introduction of the two last-named drugs "considerably increased the importance of special centres for the diagnosis, treatment and investigation of chronic rheumatic disease." Decreases are recorded in the 1949 death rates from diphtheria and tuberculosis.

## COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

### Monday, October 8

NOTTINGHAM BRANCH, PHARMACEUTICAL SOCIETY, Medico-Chirurgical Society lecture theatre, 64 St. James' Street, Nottingham, at 7.30 p.m. Dr. K. R. Capper on "The British Pharmaceutical Codex."

ROMFORD BRANCH, PHARMACEUTICAL SOCIETY, Unicorn, Gidea Park, Romford, Essex, at 7.30 p.m. Dr. S. Thompson (Romford Chest Clinic) on "Tuberculosis: Past, Present and Future."

SOUTHAMPTON BRANCH, PHARMACEUTICAL SOCIETY, Polygon Hotel, Southampton, at 7.30 p.m. Mr. I. Macdonald on "Business Opportunities for the Retail Pharmacist."

SUNDERLAND BRANCH, PHARMACEUTICAL SOCIETY, and SOUTH SHIELDS PHARMACISTS' ASSOCIATION and BRANCH, Dorset Café, Ocean Road, South Shields, at 7.30 p.m. Mr. A. L. Bacharach on "How Laboratories Use Animals."

WEST KENT BRANCH, PHARMACEUTICAL SOCIETY, Whim, High Street, Beckenham, at 8 p.m. Inaugural meeting and members' symposium.

### Tuesday, October 9

HOUNSLAW BRANCH, PHARMACEUTICAL SOCIETY, Sun Hotel, Hanworth Road, Hounslow, Mr. D. G. Ardley (May & Baker, Ltd.) on "The Antihistaminics."

NORTH LONDON PHARMACEUTICAL ASSOCIATION and BRANCH, Beale's restaurant, Holloway Road, London, N.7. Representatives of Yardley & Co., Ltd., on "Cosmetics and Beauty Culture."

PORTSMOUTH BRANCHES, PHARMACEUTICAL SOCIETY, and NATIONAL PHARMACEUTICAL UNION, Solent Hotel, South Parade, Southsea, at 7.30 p.m. Mr. W. E. Stokes on "Retail Pharmacy and the National Health Service."

RHYL BRANCH, PHARMACEUTICAL SOCIETY, Mostyn Hotel, Rhyl, at 7.30 p.m. Dr. R. H. Hodgkinson on "Chloromycetin."

WIMBLEDON PHARMACISTS' ASSOCIATION and BRANCH, Wimbledon Town Hall, at 7.45 p.m. Films: "Diphtheria Antitoxins and Prophylactics," "Insulin," and "Foxgloves in Medicine."

### Wednesday, October 10

CROYDON PHARMACISTS' ASSOCIATION and BRANCH, Café Royal, North End, Croydon, at 7.15 p.m. Supper and entertainment.

### Thursday, October 11

NATIONAL ASSOCIATION OF WOMEN PHARMACISTS, and EAST METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY, 17 Bloomsbury Square, London, W.C.1, at 7.30 p.m. Mr. J. C. Hanbury on "The Use of Fine Chemicals in Pharmacy, 1700-1900."

### Friday, October 12

HULL CHEMISTS' ASSOCIATION and BRANCHES OF THE PHARMACEUTICAL SOCIETY AND NATIONAL PHARMACEUTICAL UNION, Imperial Hotel, Hull, at 8 p.m. Mr. T. Heseltine (a member of the Society's Council) on "N.H.S. and Pricing Problems."

DARTFORD TECHNICAL COLLEGE, Essex Road, Dartford. Course of six lectures on "Recent Advances in Pharmacology and Therapeutics," by Mr. G. Somers, Ph.D., B.Sc., Ph.C., commencing October 22, at 7.30 p.m. Fee 15s.

## MARRIAGES

**McCARTAN—KENNEDY.**—At St. Andrew's Church, Dublin, recently, P. J. McCartan, co. Mayo, Eire, to Niamh M. A. Kennedy, M.P.S.I., Castle Street, Roscommon.

**CROMIE—INGHAM.**—At Windsor Presbyterian Church, Belfast, on September 21, Stewart Alexander Cromie, B.Sc., M.P.S.N.I., Western Avenue, Acton, London, W.3, to Barbara Edith Ingham, Belfast.

## DEATHS

**BAYLEY.**—Recently, Mr. Charles Wesley Bayley, M.P.S. (a member of the staff of the British Malt Products Co., Lothian House, Leathermarket Street, London, S.E.1). Mr. Bayley qualified in 1904.

**HARKER.**—On September 6, Mr. George Clarkson Harker, M.P.S., 40 Cleveland Road, Barnard Castle, co. Durham, aged sixty-nine. Mr. Harker was in business in Barnard Castle for thirty-seven years until he retired in 1948.

**HORRY.**—At his home, 4 Horncastle Road, Boston, Lincs, on September 22, Mr. William Tom Horry. Mr. Horry, who qualified as a chemist and druggist in 1889, was formerly in business for many years at Wide Bargate, Boston, of which town he was a native, though he served his apprenticeship at Maidstone, Kent.

**LAVERACK.**—On the night of September 18-19, Mr. E. W. Laverack, M.P.S., 18 The Mount, Malton, Yorks, aged seventy-four. Mr. Laverack was found dead in the dispensary of the Market Place, Malton, pharmacy of Laverack & Sons, Ltd., of which company he and his brother, Mr. Clyve C. Laverack, Ph.C., were directors. Mr. Laverack had only comparatively recently lost his wife. His son, Mr. Percy Laverack, M.P.S., died on July 17.

**LLOYD.**—At the Queen Elizabeth Hospital, Birmingham, on September 17, following an operation, Colonel Bertie Taylor Lloyd, O.B.E., M.C., D.L., J.P., M.P.S., 20 Great Dark Street, Aberystwyth. Colonel Lloyd qualified in 1901, had been in business in Aberystwyth for fifty years, and was chairman of the Cardiganshire Branch of the Pharmaceutical Society. In 1939 he was High Sheriff of the county and was later appointed a Deputy Lieutenant. He was chairman of the local bench of magistrates, of the mid-

Wales Hospital Management Committee, and of the County Territorial committee, and a member of the Committee of the Welsh Pricing Bureau and of the county Executive Committee. He served with the Royal Artillery in the 1914-18 war, during which he was decorated with the Military Cross, and rose to the rank of Colonel. He later commanded the 102nd Brigade (R.A.(T)). He received the O.B.E. in the Birthday Honours 1950.

**MORGANS.**—Recently, Mr. Llewellyn Morgans, M.P.S., Medical Hall, Abergele, Denbighs, aged sixty-one. A native of Towyn, Merioneths, Mr. Morgans had been in business as a chemist and druggist at Abergele for the past nineteen years. He also conducted an optical practice.

**OWEN.**—On September 26, Mr. Richard Owen, M.P.S., 2 Westminster Buildings, Regent Street, Wrexham, Denbighs, aged fifty-five. Mr. Owen was a past-chairman of the local branch of the Pharmaceutical Society, and a former captain of Wrexham Golf Club.

**PERCIVAL.**—In Edinburgh, suddenly, on September 27, Mr. Edmund George Vincent Percival, Ph.D., D.Sc., F.R.I.C., F.R.S.E. (reader in chemistry at the University of Edinburgh). Since 1937, Dr. Percival had been a member of the Pharmaceutical Society's board of examiners for Scotland. A regular attender at evening scientific meetings of the Society in Edinburgh, he twice delivered papers at such meetings. Dr. Percival went to Edinburgh in 1933 from Birmingham University, where he was a member of the research team that synthesised ascorbic acid. Recently his researches were concentrated on carbohydrates and sugars, and he was the author of a book "Structural Carbohydrate Chemistry," in addition to many research papers. At the meeting of the British Association in Edinburgh recently he was local secretary of the chemistry section. He was a member of the council of the Chemistry Society and of the local section of the Royal Institute of Chemistry.

**TAYLOR.**—At 1 Hillhead Street, Glasgow, W.2, on September 24, Mr. James Taylor, M.P.S. Mr. Taylor, who qualified in 1901, formerly lived at Peterhead, Aberdeen.

**WEIR.**—On September 27, Mr. Alexander Weir, M.P.S., Pinewood, Selkirk. Mr. Weir qualified in 1940.

## PERSONALITIES

MR. H. PROCTER SMITH, M.P.S., 7 Brambledown, London, N.7, has resigned his position with Herts Pharmaceuticals, Ltd., Welwyn Garden City.

MR. COLIN GUNN, B.Pharm., Ph.C., who heads the team that has planned the



*C. & D.* refresher course (p. 463), is head of the school of pharmacy, Leicester College of Technology. Apprenticed with the late J. B. McLaren at Kirkcaldy, Fife, he had further experience with the late George Lunan, Queensferry Street, Edinburgh, before qualifying from the Heriot-Watt College, Edinburgh.

After gaining the Pharmaceutical Chemist diploma in 1927, he returned as demonstrator for two years on the staff of the pharmacy department. He was appointed lecturer in pharmaceutics in the school of pharmacy, Leicester College of Technology, in 1929, and became its head in 1941. He has acted as external examiner in pharmaceutics to the Queen's University, Belfast, and is at present a member of the pharmaceutics panel of the Pharmaceutical Society's board of examiners for England and Wales.

MR. DORRELL RAYMOND BRAGG, B.Sc. First-class Hons. Lond., B.Pharm., Ph.C., a member of the *C. & D.* refresher course team, has been for a number of years lecturer in chemistry at the Leicester College of Technology. In 1950 he passed the B.Sc. special chemistry examination of London University (external) with first class honours, and for the past year has been mainly concerned with lecturing in pharmaceutical chemistry. An old student of the Col-

lege, he was apprenticed with Mr. F. T. Wilby, Leicester, passing the Bachelor of Pharmacy degree examination in 1946. From 1946 to 1947 he held a post as works chemist with Wands, Ltd., Leices-

ter.

MR. IAN FERGUSON (chairman and managing director of Evans Medical Supplies, Ltd.) leaves Britain on October 2 for an extensive business tour of Canada and U.S.A.

MR. J. H. WILKINSON, Ph.D., F.R.I.C., M.P.S. (senior lecturer in chemical pathology, Westminster Medical School, University of London), read a paper before the International Congress on Pure and Applied Chemistry, New York (see p. 457).

MR. NORMAN J. HARPER, M.Sc., A.R.I.C., who has been appointed lecturer in pharmaceutical chemistry at the Chelsea Polytechnic school of pharmacy, is a member of the Pharmaceutical Society of Northern Ireland and a graduate of Queen's University, Belfast. A nephew of the late Mr. T. Harper, M.P.S., manager of Grattan & Co., Ltd., Belfast, Mr. Harper's first position was as assistant lecturer in pharmacy and pharmaceutics at the Belfast College of Technology. He afterwards became lecturer in charge of pharmaceutical chemistry, Royal Technical College, Glasgow.

MISS MYRTLE LAWSON, M.P.S. (1951 winner of the Umney Memorial prize for dispensing awarded to newly qualified pharmacists), took her training at the School of Pharmacy, Leicester College of Technology, Leicester, and is the third successive student from the school to win the prize. She and six of her fellow students comprised seven of the eight students who were selected to compete for the 1951 prize. Miss Lawson was apprenticed with Mr. Cyril Jacobs, Leicester, and later served in the pharmaceutical department of the Leicester Royal Infirmary under Mr. E. J. Fitchett, Ph.C.



## TRADE NOTES

**Bonus Parcels.**—Details of bonus parcels of Glymiel jelly now available from Sangers, Ltd., 258 Euston Road, London, N.W.1, are given on another page.

**Extension to Range.**—Roche Products, Ltd., Welwyn Garden City, Herts, announce that Ro-A-Vit brand synthetic vitamin-A tablets are now available in packs of thirty and 200 tablets, each containing 50,000 international units (approximately 17 mgm.) vitamin-A acetate.

**Now on Drug Tariff.**—Calmic, Ltd., Crewe Hall, Crewe, Cheshire, announce that, from October 1, prescriptions for Cimlac gauze on form EC10 may be accepted by chemist contractors. There are two packs—a prescription pack of ten pieces in carton and a hospital pack containing twenty-four pieces in aluminium box.

**Price Correction.**—A. Wander, Ltd., 42 Upper Grosvenor Street, London, W.1, state that their announcement on another page went to Press before new prices were fixed for Wander brand and Own Name malt and cod-liver oil. The new prices, effective from October 1, are: Jars, 1-lb., 22s. 9d. (gross for equivalent, 22s. doz.), 2s. 6d.; 2-lb., 43s. doz. (gross for equivalent, 41s. 6d.), 4s. 9d.

**Not a Bleach—a White Dye.**—A new product Dye-white, issued by Tintex Dyes, Ltd., 127 High Street, Croydon, Surrey, intensifies the whiteness of white fabrics by "dyeing" them with a substance that reflects ultra-violet light. The process is carried out simply (a two-minute dip) at home, is without harmful effect on the fabric or the hands, remains fast through four washings, and has also the effect of heightening the brilliance of colours in mixed white and coloured materials. Dye-white is marketed in sixpenny packets.

**Electric Shaver with Year's Guarantee.**—Constructed on a different principle from that embodied in electric shavers previously on the market, the Braun S50 electric dry shaver undergoes only unimportant wear in its moving parts and is sold with a twelve months' guarantee of replacement if defective. Its special features are its extremely thin, flexible steel cutting "leaf," which wraps round the barrel end of the shaver, giving a closer shave, it is claimed, than by any other comparable instrument, and that, although electric, it has "no electric motor." Manu-

factured in the United States zone of Germany, the S50 is marketed in Britain by Braun (Bletchley), Ltd., Balham Road, London, N.9.

**D. and P. Trade Exhibitions.**—Kodak, Ltd., Harrow, Middlesex, have organised a series of photographic trade exhibitions between October 1951 and February 1952, at which will be shown equipment for the developing and printing trade. The programme is as follows:—

October 16-19: GLASGOW, C.1, 22 Albion Street.

October 23-25: BELFAST, 83 Ravenhill Road.

November 13-16: MANCHESTER, 1, 63 Sackville Street.

November 20-23: BIRMINGHAM, 3, 32 Charlotte Street.

December 3-7: LONDON, W.C.2, Kodak House, Kingsway.

January 15-18, 1952: LEEDS, 2, 1 Crown Street.

January 29-February 1: NEWCASTLE-ON-TYNE, 1, Waterloo Street.

February 19-22: DUBLIN, Kodak House, Rathmines.

Each exhibition will be open daily from 10 a.m. to 5 p.m.

**New Products and Packs.**—BAYER PRODUCTS, LTD., Africa House, Kingsway, London, W.C.2, have introduced Neophryn (*l*-m-hydroxy- $\alpha$ -(methylaminomethyl) benzyl alcohol hydrochloride) a new preparation for use in nasal congestion and similar conditions. The makers state that the action of Neophryn on the nasal mucosa is rapid in onset (5-20 min.), prolonged (3-4 hrs.) and undiminished after repeated application. It may be employed in children as well as adults. Neophryn is issued in bottles of 15 mils.—DIXOR, LTD., St. Leonard's Works, Mortlake, London, S.W.14, have introduced three new beauty preparations: Velouty foundation cream, skin food and cleansing cream. The cartons and tubes in which these products are issued echo the familiar design of the Velouty de Dixor pack, and national Press advertising has been booked.—ORGANON LABORATORIES, LTD., Brettenham House, Lancaster Place, London, W.C.2, have introduced Mixogen, a combination of methyltestosterone, B.P., and ethynodiol, B.P. The proportions in which each is present were established following clinical trials in the United Kingdom. Mixogen tablets are claimed to have proved of high value in both the menopause and the male climacteric. They are issued in tubes of twenty-five and bottles of 100, 250, 500 and 1,000.

# PROPRIETARY ARTICLES TRADE ASSOCIATION

## Additions and Alterations to the Protected List (Part 1)

(I.R.P.=Inclusive Retail Price)  
Doz. Tax I.R.P.  
s. d. % s. d.

### Allen & Hanburys, Ltd.

Allenburys:—

Malt extract	1-lb.	20	9	Nil	2	3
	2-lb.	39	6	Nil	4	4½
Malt extract with cod-liver oil	1-lb.	22	9	Nil	2	5½
	2-lb.	43	0	Nil	4	8½
	4-lb.	83	6	Nil	9	0

Malt extract with cod-liver oil, iron and calcium

1-lb.	23	3	33½	3	1
2-lb.	44	0	33½	5	11

Malt extract with halibut liver oil

1-lb.	23	9	Nil	2	6½
2-lb.	45	0	Nil	4	10½

### Anestan, Ltd.

Anestan tablets	10	15	0	33½	2	1
	30	37	6	33½	5	2½
	60	66	0	33½	9	2
	180	171	0	33½	23	9

### Ephazone Co.

Ephazone tablets	12	33	0	33½	4	7
	24	60	0	33½	8	4
	50	102	0	33½	14	2
	100	189	0	33½	26	9

### Hobson, Trimble & Co.

Hobson's Choice corn plaasters	3	doz.	net	4	10	33½	3
	1	gross		17	8	33½	
	3	doz.	net	12	3	33½	7
	1	gross		44	6	33½	

### Howard Lloyd & Co., Ltd.

Lloyd's adrenaline cream	45	0	Nil	5	0
	63	0	Nil	7	0
	135	0	Nil	15	0

### Alterations to Protected List (Part 2)

#### Stemco, Ltd.

Flit	8-oz.	15	0	Nil	1	9
	16-oz.	25	0	Nil	3	0
	32-oz.	44	0	Nil	5	3

Aerosols	6-oz.	65	10	Nil	7	6
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## PRICE CHANGES

(I.R.P.=Inclusive Retail Price)

### Bayer Products, Ltd. (from September 24).

Doz. Tax I.R.P.	Doz. Tax I.R.P.		
s. d. % s. d.	s. d. % s. d.		
Novalgin powder, 1-oz. ...	33½	26	1
tablets, gr. 5 25	33½	7	6
100	33½	26	1
250	33½	64	8
1,000	33½	248	9

ampoules, 50 per cent. 5 x 2 mil 33½ 9 11

### Manston Medical Products, Ltd. (from September 20).

Ipsolon rheumatic balm ... 12 0 1 9

tablets ... ... 20 0 3 0

tablets ... ... 12 0 1 9

### G. L. Bencard, Ltd. (from October 1).

Benzazma, 8-oz. ... ... ... ... 7 9½

20-oz. ... ... ... ... 18 1

80-oz. ... ... ... ... 65 7

Prices of certain other products of the company have also been amended.

*The British Drug Houses, Ltd. (from October 1).*

Dienestrol, B.D.H., and stilbestrol, B.D.H., and stilbestrol dipropionate, B.D.H., are reduced in price.

*Cuxson, Gerrard & Co., Ltd. (from October 1).*

Sylvia sanitary towels, 0 ... 22 3 2 5½

1 ... 24 11 2 9

2 ... 28 3 3 4

3 ... 33 1 4 0

Sylvia maternity pads, with loops, 12 in. ... 35 1 4 4

Altex sanitary towels ... 21 6 2 4

*Imperial Chemical (Pharmaceuticals), Ltd.*

Avlon penicillin, eye ointment, B.P., 1,000 units per gm. 1-dr. tube ... 10 0 1 3

Phenovis powder, 30-gm. 9 4 1 2

1-lb. 82 0 10 3

7-lb. 516 0 64 6

Phenovis tablets, 1-gm. 20 14 8 1 10

60 33 4 4 2

500 189 4 23 8

5-gm. 50 64 0 8 0

250 280 0 35 0

## LONDON DISPENSING TESTS

THE Pharmaceutical Service Committee of the London Executive Council recently considered the report of the Council's analyst that a sealed sample of tab. phenobarbiton., gr. ½, submitted to the Council's analyst, gave an unsatisfactory result in a disintegration test. The contractor's own analyst reported that "the result is satisfactory subject to the true meaning of the word 'disintegration,' for when treated by the prescribed method the tablets are fully disintegrated but not fully dispersed." The Government chemist reported "The tablets do not disintegrate completely when subjected to the disintegration test of the British Pharmacopœia, but disintegrate partially into both large and small fragments. The fragments are completely permeated by the water used in the test and require the application of slight force for their subsequent complete disintegration. I am, therefore, of the opinion that the tablets do not comply with the requirements of the disintegration test of the British Pharmacopœia." The suppliers (a well-known manufacturer) said:—"In the absence of any particular qualification in the B.P., one can only interpret the word in its ordinary accepted dictionary meaning, which is to fall apart into its component parts." Every make of phenobarbitone tablets they had examined exhibited one of two types of disintegration, either the kind referred to in the case —where the tablet fell apart into agglomerates of microcrystalline particles all

thoroughly wetted and dispersible on the slightest of mechanical pressures; or what might appear to be a more thorough dispersion, but only because the tablets had been compressed from larger crystals that had not the cohesion of the microcrystalline particles. Which type of tablet would be better therapeutically could only be decided by a physiologist. The Committee felt that the chemist was placed in an invidious position. If there were difficulty in providing tablets capable of passing the B.P. test, it was for the chemist, the organisations concerned with pharmaceutical interests, and the manufacturers to make representations in the appropriate quarter. In the meantime they found that a breach of the terms of service had been committed.

The Council's analysts were invited to comment on the fact that, in a test pre-

scription for a draught of chloral hydrate, their report disclosed an excess of 39.4 per cent. of chloral hydrate, whereas the reports of the contractors' analyst and Government chemist showed excesses of 20.0 and 19.2 per cent. respectively; they suggested that at the time of the division the substance might not have been evenly dissolved in the mixture.

In another case, a company was censured for a 36.9 per cent. deficiency of ammonium chloride in a mixture dispensed by a manager. The company said that in their opinion the chloride had been added as a solution taken as 1 in 3, whereas it was 1 in 6. The manager had since left their employment. The Ministry of Health is being asked to withhold £5 5s. from the amount due to the company.

## PHARMACEUTICAL SOCIETY OF NORTHERN IRELAND

A MEETING of the Council of the Pharmaceutical Society of Northern Ireland was held in Belfast on September 21, the president (Mr. H. W. Gamble) in the chair. Also present were Messrs. W. H. Boyd (vice-president), H. P. Crossin (treasurer), C. Abernethy, S. E. Campbell, H. J. Cousley, M.B.E., J.P., J. Irwin, P. R. W. Shinner, W. C. Tate and Professor E. B. C. Mayrs, M.D. The secretary (Mr. W. Gorman) was in attendance. Apologies for absence were received from Messrs. W. P. Ewart, F. Moore, J.P., and J. McGregor.

THE PRESIDENT referred to the death of Mr. James McDowell, president of the Society, 1945-46 (see *C. & D.*, September 1, p. 272), and said that his passing was a great loss. Members stood in silence as a token of respect. A copy was received of the warrant appointing Mr. W. F. Patton, K.C., chairman of the Statutory Committee for a further period of five years. A letter from the Pharmacy Board of South Australia inquired if the Council would be prepared to consider entering into a reciprocal arrangement for recognition of qualifications for the purpose of registration, and the secretary was instructed to obtain particulars of the Board's final qualifying examination with a view to entering into such an agreement.

### Poisons Amendments

After consideration of a letter from the Ministry of Home Affairs it was resolved to make the following amendments to the Third Schedule to the Medicines, Phar-

macy and Poisons Act (Northern Ireland), 1945:—(a) To Part I add chlorcyclizine; promethazine; gallamine; its compounds; organic compounds of mercury which contain a methyl (CH<sub>3</sub>) group directly linked to a mercury atom; paramethadione. (b) In Part II: Substitute the words "organic compounds of mercury except compounds which contain a methyl (CH<sub>3</sub>) group directly linked to a mercury atom" for "organic compounds of mercury."

A letter was received from a pharmacist regarding the period of apprenticeship and classes for pharmaceutical students in his district. The secretary was directed to reply giving the Council's views.

The report from the Education Committee, which was adopted, recommended the granting of certificates of apprenticeship to forty-one students. It was ordered that the Society's seal should be placed on the certificates of qualification of students who passed the Final Qualifying examination in June. The reports of the examiners were considered and it was decided to send copies to the colleges and schools recognised by the Council.

The treasurer's financial statement for the year ended August 31 was adopted. It showed an excess of expenditure over income of £44 8s.

It was decided to hold the annual meeting of the Society on October 1. Members who attended the British Pharmaceutical Conference at Harrogate reported on their visit, paying tribute to the arrangements made by the Local Committee.

## INTERNATIONAL CHEMICAL CONCLAVE

AN International Chemical Conclave took place in New York and Washington, D.C., U.S.A., September 3-15. The fortnight occupied by the Conclave was divided into four parts. It opened with a meeting of the American Chemical Society to celebrate its 75th anniversary. 18,000 chemists are believed to have attended that meeting, and nearly 3,000 were present at the Society's banquet, held in New York on September 6. The banquet was attended by Mr. Alben W. Barkley (Vice-President of the United States), who addressed the diners, as did Dr. C. E. Kenneth Mees (Eastman Kodak Co.). A memorial plaque was unveiled in New York to commemorate the founding of the Society, and addresses of congratulation were presented at a ceremonial session by kindred Societies in the United States and other countries. Sir Eric Rideal conveyed the congratulations of those Societies, and addresses from Societies in Great Britain were presented by Dr. L. H. Lampitt.

### A Forecast

Professor Conant (president of Harvard University), who said he was speaking as a "sceptical chemist," believed that mankind would manage, in the next half-century, to avoid war by the narrowest possible of margins; learn to harness the sun as an inexhaustible source of energy with which to replace coal and oil; be able to produce fresh water from sea water on the grandest scale, and so be able to transform maritime deserts to productive areas, and thereby secure food in plenty for all; and finally enter an era of peace and plenty undisturbed by fear of atomic bombs. Meanwhile, he thought, there would be neither an atomic holocaust nor golden abundance from an atomic age.

### Spate of Papers

No fewer than 720 papers were presented to the twenty-one divisions of the Society. Of these, some sixty-six dealt with biological or medicinal chemistry and a further thirty-one with organic chemistry. The meeting of the American Chemical Society was followed by a meeting of the International Union of Pure and Applied Chemistry, which meets every second year. There was also a meeting of the International Congress of Pure and Applied Chemistry, which meets every four years. At the meeting of the Congress no fewer

than 996 papers were presented in five days. Of these, 107 were in the division of biological chemistry, 100 in medicinal chemistry and 124 in organic chemistry. Abstracts of the papers presented to the American Chemical Society are obtainable in a booklet published by the Society (1155 16th Street, N.W., Washington, 6,



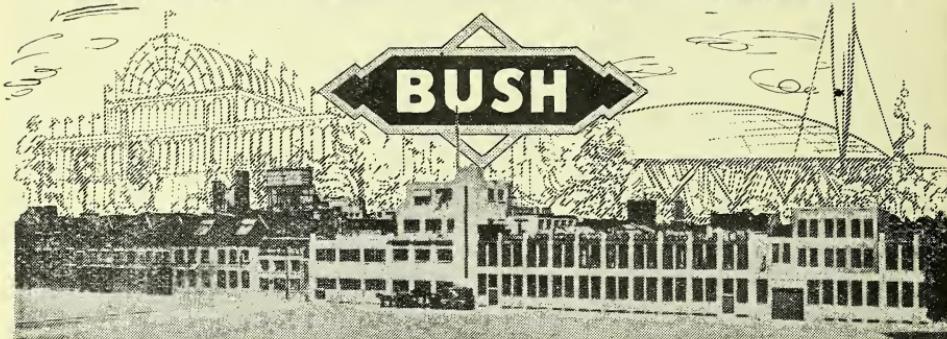
Postage stamp issued by the U.S. Government in recognition of the Diamond Jubilee of the American Chemical Society

D.C., U.S.A., price \$2.50 (17s. 10d.). Abstracts of the papers presented to the Congress have also been published in a booklet, obtainable at the same price from Dr. Harry L. Fisher, National Research Council, 2101 Constitution Avenue, Washington, 25, D.C., U.S.A.

After the Congress meeting the International Union moved to the headquarters of the National Research Council in Washington for the completion of its meetings and joined with the National Bureau of Standards of the U.S.A. in celebrating the fiftieth anniversary of the founding of that institution.

*Our correspondent writes:* If one had to draw attention to any items one would naturally turn to Professor Conant's address, to which I fear I have done scant justice, for it was one of the most interesting and moving I have ever heard; and to our own Professor Sir Robert Robinson's account of his complete synthesis of epandrosterone, read to the American Chemical Society. I suppose that there has never been a larger meeting than this Conclave; already such meetings can be held only in three cities of the United States: New York, Chicago and Atlantic City; and it is thought that so large a gathering of chemists may never be attempted again. Not only is the organisation frightening to contemplate, but there are physical difficulties for the members themselves, such as difficulties of finding friends and acquaintances in so large a throng. It may well be that in future only one division of the subject will meet at any given time.

# EMPLOYEES CELEBRATE THE CENTENARY OF



FOLLOWING the series of "At Homes" organised in connection with various trade exhibitions in celebration of their centenary (see *C. & D.*, January 13, p. 52), W. J. Bush & Co., Ltd., entertained their employees in London, augmented by a contingent from Widnes, to an all-day outing to the Festival of Britain South Bank exhibition and Battersea Park Festival Gardens and Fun Fair on September 22. Each employee was provided with two complete sets of tickets covering admission, meals, concert and river trips, and the party that occupied the Royal Festival Hall at noon for buffet lunch numbered over 2,000.

From lunch in the main foyer the guests ascended to the auditorium where at 1.15 took place a series of ceremonial presentations. The chairman, Mr. P. C. C. Isherwood, O.B.E., Ph.D., F.R.I.C., received at the hands of Mr. Brinsley Bush, "on behalf of the many thousands who have subscribed," his portrait in oils. Dr. Isherwood, said Mr. Brinsley, had been very greatly responsible for making that gathering possible. When he called for three cheers the response was immediate and

full, and Dr. Isherwood, in acknowledgement, said he had been fortunate in starting off fifty years ago with a welcome at all levels and meeting with the fullest co-operation and response ever since.

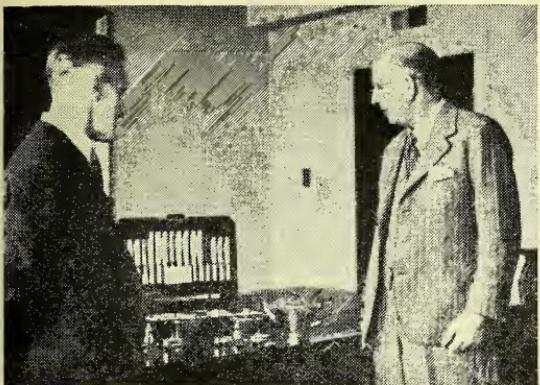
Next, on behalf of the company's staff in the United Kingdom, Mr. F. H. Priest (works manager at the Mitcham factory) presented the directors with an illuminated globe with the company's depôts pinpointed to be placed in the main office. Accepting it, the chairman (Dr. Isherwood) said that the world-wide reputation of the company could not have been achieved in the life-time of any person present that day, and he would like to acknowledge "the great men who went before." He himself had been privileged to be closely associated with all the directors except the founder.

Finally, Mr. Eric L. Bush presented to each in turn of 266 employees with twenty years' service a silver dish; to forty-four members with forty years' service a gold watch, and to nine employees with over fifty years' service, and who had already received their gold watch, a special edition of the centenary album, suitably inscribed.

The presentations were followed by a concert of light music until 3.30.

**Left:** Mr. P. C. C. Isherwood (chairman) receives his portrait in oils; with him is Mr. Brinsley Bush. **Right:** Mr. A. E. Pitt (chairman, Potter & Moore, Ltd.) receives from Mr. Eric L. Bush his award for fifty years' service.





In token of the completion of fifty years' service with Allen & Hanburys, Ltd., Mr. John Oliver, cashier (left) receives from Mr. F. Capel Hanbury a canteen of cutlery, etc.



Rose bowl presented to London Chemists' Golfing Society by Aspro, Ltd., and competed for at Wembley (see p. 448).

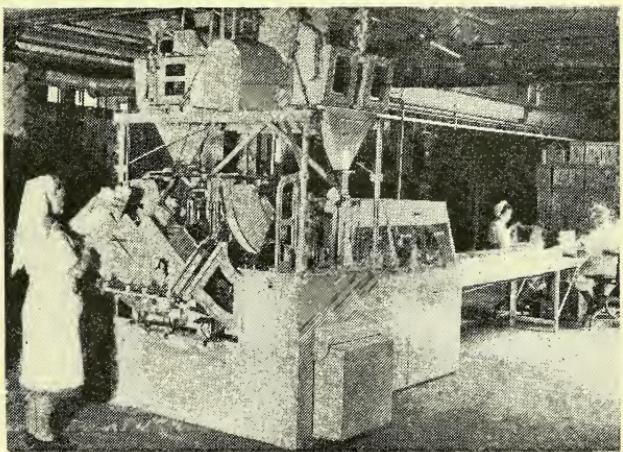


## NEWS IN PICTURES

Members of the North Staffs Branch of the Pharmaceutical Society photographed at the works of Glaxo Laboratories, Ltd., Greenford, during a recent outing.



Leverhulme centenary (see p. 446). Portrait of first Viscount Leverhulme taken in 1919.



Plant giving greatly increased output in Farex packaging department of Glaxo Laboratories, Ltd., Greenford, Middlesex (see p. 466). The installation is part of a scheme for increasing productivity.

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VOL. CLVI OCTOBER 6, 1951 No. 3737

### Request Programme

*"Refresh, re-fresh, v.t. to give new strength, spirit, etc., to: to revive after exhaustion: to enliven: to restore a fresh appearance to: . . ."*

So states Chambers' Twentieth Century dictionary. Thus the task presented to the compilers of the *C. & D.* refresher course for pharmacists, which commences on p. 463 of this issue, is to present in some twenty articles a professional refreshment to pharmacists. Since, however, much of the series will deal with new matter, the term "refresher" is not entirely apt. The problem of deciding what was to be included in the course was, in fact, not easy. However, by conducting a kind of public opinion poll, by post, among representative pharmacists, a basic syllabus was drawn up. The content of the course is therefore something of a "request programme," which it is hoped will prove of interest and value to the majority of subscribers. The course is chiefly intended for those whose college training is now a memory of at least five years ago, and we make no apology for presenting the facts in a simple and readable form. By that means even a hard day's work in the service of National Health will make the course no drudgery. We are confident, however, that any necessary "sticky bits" will be tackled conscientiously, as their importance in the course as a whole may be considerable. Pharmacy, chemistry, and the pharmacology of the newer medicaments are to be the chief subjects dealt with, and the

sequence has been arranged as logically as possible. At the beginning some fundamental principles are introduced. Judging by the "poll" results, many pharmacists seek at least some refreshment on the meaning of *pH*, and we therefore start the course on that important subject. The second article is devoted to the nomenclature of organic compounds — a subject growing in importance with the increasing tendency for complex organic chemical compounds to replace naturally occurring drugs and their galenical preparations. To meet a strong demand for information about the newer ointment bases a survey of that wide field will be given. A review of modern methods of preparing sterile materials will concentrate on processes that are practicable in a retail pharmacy, particular attention being given to problems presented by the British Pharmaceutical Codex and the National Formulary requirements that eye drops must be dispensed "with aseptic precautions." The advantages and limitations of the antiseptics and germicides in use today, such as the hypochlorites, lysol, white and black fluids, halogenated phenols, quaternary ammonium compounds and the acridine dyes, will be considered. Under antibiotics a comparative review will be made of the activities against common infections of penicillin, streptomycin, chloramphenicol, aureomycin, terramycin and neomycin, bearing in mind that clinical work is frequently still incomplete. The factors affecting the stabilities of penicillin and streptomycin will be related to their dispensing and storage, and the significance of the new monographs for those substances in the 1951 Addendum will be fully explained. Penicillin injections and preparations of steroid hormones will be used to explain dépôt medication.

The pharmacological action of drugs or groups of drugs included in the course will be described so far as they are known. Discussion of commonly used antihistaminics (seven in number) will be followed by a discussion of the barbiturates, certain hormones of recent development, and some recently introduced analgesics such as amiodone, phenadoxone and pethidine. Then

follows an article on the ganglionic blocking and neuromuscular blocking actions of the methonium compounds, and curare. Other preparations to be discussed include the newly official blood preparations—followed logically by an appraisal of the present status of anticoagulant therapy—liver preparations, and immunological products.

To help readers to think about the subjects we shall follow each instalment wherever practicable with a few questions, the answers to which will be found elsewhere in the issue. Though very conscious that in this "syllabus" much is omitted, we have tried to include, so far as our space will allow, all the items that have been requested. Requests for the inclusion of additional items would be fully considered and so far as possible met.

### "Vetting" for Disinfectant Advertisements

ONE of the points made by Professor Berry in his presidential address to the British Pharmaceutical Conference recently was that some of the scientific members of organisations marketing disinfectants must be ashamed of the claims made in their companies' advertisements. "It is a great pity [they] cannot control their enthusiastic colleagues." In agreeing with Professor Berry's strictures, the "World's Press News" quoted an example that proves that control was at least exercised by one chief chemist on claims proposed to be made for one product on one occasion. "The copywriter's scheme," states that paper's leader-writer, "offered a new use based on a dilution calculated from the result of the Rideal-Walker test which was then being featured in the firm's advertising. The dilution was such that it became economically practicable for the housewife to make daily use of the product. You may judge of the surprise of the copywriter when the chief chemist said that the Rideal-Walker test was a bench test for use in the laboratory, but that for the purpose suggested by the copywriter, four times the quantity would have to be used to ensure that the disinfectant would be effective in practical conditions!"

The example of that company in inviting

the copy-writer to discuss advertisement claims with its technical experts is certainly worthy of emulation. More important, however, is action to secure codes of advertising standards for disinfectants analogous to those accepted by newspaper proprietors today for proprietary medicines. In this matter the "World's Press News" is again on the side of Professor Berry. It expresses surprise that the Newspaper Proprietors' Association "should permit in the case of disinfectant advertising a looseness of language and claim which in the case of a proprietary medicine they would indignantly and virtuously reject." With whom now lies the initiative to secure appropriate action?

### Not a Fair Test

ATTENTION has been drawn to the unsatisfactory nature of the pharmacopoeial test for disintegration of tablets on a number of occasions, notably at the science sessions of the British Pharmaceutical Conference, 1950. The demerits of the test have recently been given a new and unfortunate notoriety through its use as the basis of a prescription test under the National Health Service (see p. 455). The Pharmaceutical Service Committee concerned in that case drew attention to the invidious position in which a contractor is placed when his services are examined on so unreliable a basis, but it had no option under the regulations but to find that a breach of contract had been committed. The situation demands that one of two courses shall be adopted. First, "disintegration" should be unequivocally defined in relation to the pharmacopoeial test. Secondly, the test should be revised so that it is perfectly fair to all concerned (and if that is not possible in the present state of knowledge, the test should be held in abeyance). Meanwhile, it should be treated entirely as what it was no doubt intended to be, a guide to tablet manufacturers, and not applied by Executive Councils as a sort of catch or trap for contractors who are placed by it in the position of wrong-doers, however conscientiously they may be carrying out their duties.

*C. & D.*  
**REFRESHER COURSE**  
 for Pharmacists

*Compiled by*  
**COLIN GUNN, B. Pharm., Ph.C.**

*Assisted by*

**S. J. CARTER, B. Pharm., Ph.C.**

**D. R. BRAGG, B.Sc. Hons. (Lond.), B. Pharm., Ph.C.,**  
**and E. J. FITCHETT, Ph.C.**

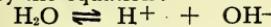
## No. 1—THE pH SCALE

*“He does not deserve the sweet who will not taste the sour”*

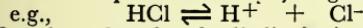
**F**OR many chemical and pharmaceutical purposes it is insufficient to describe a liquid as being acidic or alkaline, and it is frequently necessary to state the precise degree of acidity or alkalinity.

### Acids and Alkalies

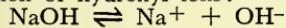
Really pure water is only very slightly ionised, in fact at 25°C in ten million litres only one gram-molecule is dissociated into hydrogen ions and hydroxyl ions, as shown by the equation:



The hydrogen ions and hydroxyl ions are of necessity produced in equal numbers by such dissociation, but if an acid is added to the water, the hydrogen ion concentration is increased and exceeds that of the hydroxyl ion, since acids dissociate in solution with production of hydrogen ions.



On the other hand alkalis ionise with production of hydroxyl ions:



Thus when alkalis are added to water the hydroxyl ion concentration exceeds the hydrogen ion concentration. The preponderance of hydrogen ions over hydroxyl ions confers acidity upon a solution, whilst the reverse is true for alkalinity. Pure water will, of course, be neutral since the hydrogen and hydroxyl ion concentrations are equal.

As has been stated, at 25°C pure water contains in  $10^7$  litres one gram-mol. of ionised water. Expressing that differently,  $10^7$  litres of pure water contains 1 gm. hydrogen ion and 1 gm. hydroxyl ion. Thus the hydrogen ion concentration and

hydroxyl ion concentration are both equal to  $10^{-7}$  gram ions per litre.

The ionic product, i.e., the product of the hydrogen and hydroxyl ion concentrations, of pure water at 25°C is  $10^{-7} \times 10^{-7}$  or  $10^{-14}$  gram ions per litre. In fact the ionic product of water, not only when pure, but in any aqueous solution, is always  $10^{-14}$ . (This is strictly true only at 25°C but errors due to temperature are relatively small and the temperature will be omitted in future.) Thus if an acid is added to water the hydrogen ion concentration may increase to  $10^{-2}$  gram ions per litre and in order to maintain the ionic product at  $10^{-14}$  the hydroxyl ion concentration must decrease to  $10^{-12}$  gram ions per litre.

### A Convenient Term

Similarly if the hydroxyl ion concentration were raised to  $10^{-3}$  gram ions per litre the hydrogen ion concentration must fall to  $10^{-11}$  gram ions per litre. It is very cumbersome to use the absolute units of acidity and alkalinity, namely gram hydrogen ions or gram hydroxyl ions per litre. To overcome that Sorenson devised the *pH* scale. The term *pH* is a contracted form of “a power of the hydrogen ion concentration.” Expressed mathematically the *pH* of a solution is the logarithm to the base ten of the reciprocal of the hydrogen ion concentration in gram ions per litre. Thus a solution containing  $10^{-3}$  gram hydrogen ions per litre has a *pH* of 2 since the reciprocal of  $10^{-3}$  is  $10^2$  and the logarithm to the base ten of  $10^2$  is 2. In the same solution, as explained above,

Gm. hydrogen ions per litre	$10^0$	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-4}$	$10^{-5}$	$10^{-6}$	$10^{-7}$	$10^{-8}$	$10^{-9}$	$10^{-10}$	$10^{-11}$	$10^{-12}$	$10^{-13}$	$10^{-14}$
<i>pH</i>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>pOH</i>	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

there will be  $10^{-12}$  gram hydroxyl ions per litre, and the  $p_{OH}$ , derived similarly will be 12. It will be noted that  $pH + p_{OH} = 14$ . The table shown on the previous page may elucidate this point.

It will be noticed that the smaller the  $pH$  value, the stronger is the acidity of the solution and the larger the  $pH$  value the stronger is the alkalinity. Solutions of  $pH$  less than 7 are acid and those of  $pH$  greater than 7 are alkaline.

### "Strong" and "Weak" Acids

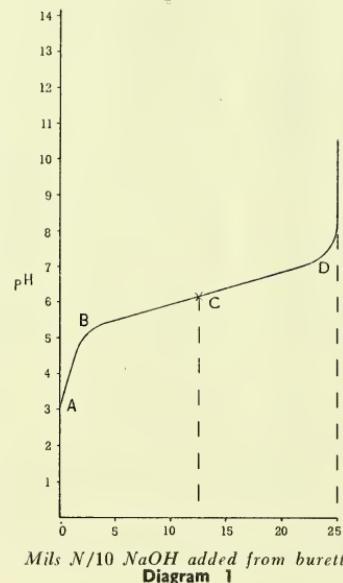
The acidity of a solution depends not only on the concentration of the acid but also on the degree of ionisation of the acid. For example, a decinormal solution of hydrochloric acid contains one gram molecule of hydrogen chloride in ten litres of solution. Hydrochloric acid at this concentration is almost completely ionised and so ten litres of the solution will contain one gram hydrogen ion (or the hydrogen ion concentration is  $10^{-1}$  gram ions per litre) and the  $pH$  value will be 1. A decinormal solution of acetic acid also contains in ten litres one gram molecule but because only one in approximately a hundred molecules of acetic acid is ionised at this concentration, the hydrogen ion concentration is  $10^{-3}$  gram ions per litre giving a solution of  $pH_3$ . The mineral acids are usually largely dissociated at moderate concentrations and are called strong acids while the organic acids which are usually only feebly dissociated at moderate concentrations are called weak acids. The strength of an acid is controlled by its readiness to ionise in solution since only the hydrogen ion—not the undisassociated molecule—contributes to the acidity of the solution. The same remarks apply to alkalis. The hydroxides of the alkali and alkaline earth metals are strong bases and ammonia and the organic bases are weak. (The pro-

verbial effect of the lemon on a trombone player would be greatly enhanced if citric acid were a strong acid.)

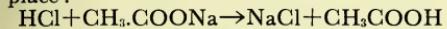
From the examples quoted above one very important point concerning the  $pH$  scale may not be obvious; that a decrease of one  $pH$  unit represents a tenfold increase in acidity. Thus if we assume complete dissociation of hydrochloric acid then N/10 solution of hydrochloric acid has  $pH$  1; N/100 has  $pH$  2; N/1,000 has  $pH$  3.

### Buffer Solutions

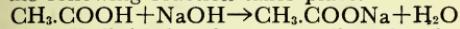
If 25 mils of N/10 acetic acid solution is contained in a flask and titrated with N/10 sodium hydroxide solution from a burette, the variation of the  $pH$  of the solution in the flask as the titration proceeds is represented by the curve in diagram 1. It will be noticed that the central portion BD of the curve is almost horizontal, indicating that over this range the addition of alkali has little effect upon the  $pH$  of the solution in the flask. At half titration—represented by point C, the acetic acid is half neutralised and the solution in the flask will contain equimolecular proportions of sodium acetate and acetic acid. A solution of this composition will have a maximum resistance to change in  $pH$  on addition of acid or alkali, and such a solution is said to be a buffer solution. The  $pH$  of this type of buffer (weak acid plus salt of the weak acid



with strong base) is always on the acid side, although the actual  $pH$  will depend upon the degree of dissociation of the acid. The mechanism of this type of buffer may be regarded in another way as follows:—On the addition of a little strong acid to the solution the following reaction takes place:—

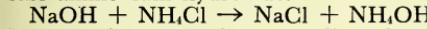


The strong acid is replaced by an equivalent amount of the weak acetic acid and so the change in  $pH$  is less than would be expected. If a little strong base is added the following reaction takes place.

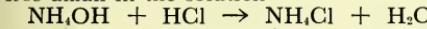


The alkali is therefore neutralised by the free acid present and the change in  $pH$  is again relatively small.

Diagram 2 represents the change in  $pH$  during the titration of a weak base such as  $N/10$  ammonium hydroxide with a strong acid such as  $N/10$  hydrochloric acid. It will be observed that at half titration there is again a maximum buffering action and the buffer solution now contains equimolecular proportions of ammonium hydroxide and ammonium chloride. The  $pH$  of the buffer solution this time is on the alkaline side. Addition of a strong base to this buffer would liberate the weak base ammonium hydroxide.



Strong acid would be neutralised by the free alkali in the solution



In both cases changes in  $pH$  would be largely damped out.

Buffer solutions are often used in pharmacy and examples will be met in subsequent articles of this course.

#### Measurement of $pH$

The most popular method of measuring  $pH$  is by the use of indicators although it is difficult to obtain an accuracy greater than 0.2  $pH$  units. In any case other methods must be used for strongly coloured solutions. An indicator is an organic substance the colour of which varies with the  $pH$  of the medium in which it is dissolved. Litmus solution is blue in alkaline and red in acidic solution, but it is not always realised that there is a  $pH$  range over which the colour is intermediate between red and blue. The colour of litmus, in fact, changes gradually from red at  $pH 5$ , to blue at  $pH 7$ . Other indicators behave similarly although the colour change may be different and over a different  $pH$  range. A universal indicator (which may be pre-

pared by dissolving methyl orange, methyl red, naphtholphthalein and phenolphthalein in the correct proportions in 70 per cent. alcohol) is useful to measure  $pH$  approximately, since this indicator changes colour smoothly from red at  $pH 3$  through orange, yellow, green and blue to violet at  $pH 11$ . (Note that the colours are those of the spectrum in the correct sequence.) A little of this indicator is added to the solution under test and the colour compared with a special colour chart from which the approximate  $pH$  can be read off. More accurate measurement is then effected by adding, to another portion of the solution under test, an indicator which changes colour over a  $pH$  range which includes the approximate  $pH$  determined. The colour is compared with colours obtained with the same indicator in a series of buffer solutions of slightly differing and known  $pH$ . (The Pharmacopoeia gives details for the preparation of such solutions. The British Drug Houses, Ltd., Graham Street, City Road, London, N.1, have produced comparators to make the accurate determination more quickly carried out. Details of the comparators are given in a pamphlet published by the company.)

It is hoped that this brief review will be of assistance to readers of subsequent articles in this course, since in many discussions of a pharmaceutical nature it is essential to refer to  $pH$  values and buffer solutions.

#### Questions

1. What is the  $pH$  of a solution containing 0.000001 gram-hydrogen-ions per litre?

2. Phenolphthalein solution changes from colourless at  $pH 8.3$  to red at  $pH 10$ . Can an alkaline solution be acidic to phenolphthalein?

3. What effect would an increase in concentration have on the  $pH$  of a buffer solution, if the solutes were maintained in the same relative proportions.

(Answers on p. 476).

**Alkali Inspectors' Report.**—The eighty-seventh annual report of the chief alkali inspectors of the Ministry of Local Government and Planning and the chief inspector for Scotland, published recently by H.M. Stationery Office, records that, during 1950, there was no deliberate evasion of the Alkali Act. 3,970 visits were made to works.

## MEDICAL ABSTRACTS

**Mode of Salicylate Action.**—From experiments on rats, van Cauwenberge ("Lancet," 1951.2.374), concluded that salicylates exert their effects not directly on the suprarenal cortex but indirectly through the pituitary axis. They found that administration of a large dose of salicylate to intact rats produces biochemical and haematological signs of adrenocortical hypersecretion, which cannot be observed in rats from which the pituitary has been removed.

**Simple Wart Treatment.**—Sixty out of ninety cases of plantar warts were cured by Duthie and McCallum at the University of Edinburgh ("British Medical Journal," 1951.2.216) by covering the wart with elastic adhesive dressing immediately after removing the outer horny layer by paring. The dressing was kept in position for eight days and the process repeated if necessary. In resistant cases 25 per cent. suspension of podophyllin in liquid paraffin was rubbed into the pared surface of the wart before occluding with the dressing. The podophyllin treatment was commenced after four to six weeks of adhesive dressing treatment alone, the podophyllin being effective only when filiform processes of the wart were exposed. The combined dressing and podophyllin treatment cured thirty-seven cases out of forty.

**Biological Behaviour of Gelatin Sponge.**—In tests to determine the suitability of gelatin sponge as a haemostat in experimental surgery, Blaine ("Lancet," 1951.2.427), found the British-made product safe for implantation. It produces haemostasis promptly (without need to use thrombin) and adheres readily to bleeding surfaces. Provided the amount used is not so large as to prevent access of phagocytes to the centre of the implant, the material is absorbed by phagocytosis in 4-6 weeks after operation. Gelatin sponge may be used in conjunction with penicillin, since it was shown that the same degree of inhibition of the bacterial culture was shown in plates inoculated with Oxford staphylococcus to some of which had been added penicillin and to others penicillin and gelatin sponge. Resterilisation of unused material by dry heat is not recommended since it retards absorption.

**Tests with Adrenaline Cream.**—Tests organised by the research subcommittee

of the Empire Rheumatism Council on the effect of adrenaline cream in rheumatism have been carried out in ten rheumatism centres in England and Scotland, and are described by Bywaters ("British Medical Journal," 1951.II.120). The effect of an advertised brand of adrenaline cream was compared with that of a control cream-base similar in appearance but containing no adrenaline. The patients selected had rheumatic pain in two places in the body, one place being massaged with the adrenaline-containing cream, and the other with the control. The identity of the creams was not disclosed to the operator. No significant difference in the relief of the condition resulting from the use of the different creams could be observed. Moss ("British Medical Journal," 1951.II.236) states that the investigators failed to locate the myalgic spots, and applied the cream only to the referred areas of pain, etc. Hollis (*ibid*) claims that Bywater's comparison of the price of the two preparations used in the test is valueless.

**Poisoning by DNOC.**—In experiments organised by Harvey and colleagues ("British Medical Journal," 1951.2.13-16) five volunteers received 75 mgm. of dinitro-orthocresol by mouth daily for five or seven days. The tests showed that the weed killer, a cumulative poison, could be absorbed through the alimentary canal, and that, after a concentration of from 15-20  $\mu$ gm. had been obtained in the blood, additional doses caused a temporarily high concentration associated with symptoms of poisoning, including lassitude, headache and malaise. Exercise increased the blood level, and large quantities of liquid caused no apparent change. The substance was slowly excreted unchanged in the urine. Small quantities absorbed from the skin caused an increase in the concentration in the blood. For the treatment of mild or moderately severe DNOC intoxication Bidstrup and Payne (*ibid.*, 16-19) recommend mild or moderately severe dinitro-orthocresol intoxication, complete rest and relief from anxiety, to be ensured by the use of barbiturates. Administration of oxygen, cold sponging and replacement of fluids assist in relieving some of the symptoms. 10 mils of a 2.5 per cent. solution of methyl thiouracil intravenously is mentioned as a method of reducing the basal metabolic rate.

# British Pharmaceutical Conference, Harrogate, 1951

## Science Sessions

(Continued from THE CHEMIST AND DRUGGIST, September 15, p. 369)

### Separation of Alkaloids by Partition Paper Chromatography

By H. BRINDLE, J. E. CARLESS AND  
H. B. WOODHEAD.

[ABSTRACT]

BUFFERED filter paper has been successfully used for the separation of some of the strongly basic solanaceous alkaloids and of the feebly basic water-insoluble alkaloids of ergot, and that medium would appear to offer a general method for the separation of minute amounts of mixed acids with bases.

**Part I. Solanaceous Alkaloids.** — Papers saturated with a phosphate buffer were found satisfactory for the separation of atropine, hyoscine and apotaatropine after developing with butanol saturated with water. Iodine provided a satisfactory means of identification as each alkaloid gave a different colour. Buffers of different *pH* were tried. It was found that at a lower *pH* hyoscine, at a slightly higher *pH* atropine, spots began to move faster than those of other alkaloids. Citrate buffers gave a satisfactory series of chromatograms.

**Part II. Water-insoluble Ergot Alkaloids.** — For quantitative work the authors consider a method of chromatography in which the solvent travels upwards is better than a descending method, which produces "tailed" spots that make subsequent quantitative extraction impracticable. A method for the quantitative separation of mixtures of ergotoxine and ergocristine using buffered cellulose columns is described. If methods of quantitative recovery of alkaloids from paper chromatograms can be improved an attractive method for qualitative and for quantitative work will be available. Quantitative estimation of the recovered alkaloids is colorimetric, using dimethylaminobenzaldehyde. (From *pharmacy department, Manchester University.*)

The paper was read by Mr. J. E. Carless.

### Discussion

THE CHAIRMAN inviting discussion on the paper pointed out that the authors had described a successful new technique. He thought that it would not be long before the Pharmacopoeia introduced some such

method. DR. W. MITCHELL, London, asked whether there was any published work in which hyoscine had been "properly" isolated from *Atropa belladonna*. From his experience of the difficulties arising when chlorophyll had been absorbed on alumina he suggested that the colours mentioned by the authors were added colours. DR. J. M. ROWSON, London, asked whether the authors had compared the leaf of *Datura stramonium* with the commercial extract, for his investigations had shown a hyoscine content of 25 per cent. of the total alkaloids, and DR. G. E. FOSTER, Dartford, asked whether *Duboisia* or its extracts had been examined by the method described for previously undetected alkaloids. In experiments which he had done he had noted that ergocristine had been found in the deteriorated solution of ergotoxine. As ergotoxine ethanesulphonate B.P.C. consisted largely of ergocornine ethanesulphonate it would seem that ergocornine should have been detected in the solution. Had the authors hydrolysed the ergotoxine used and examined the amino acid formed to determine the alkaloidal composition? In reply MR. CARLESS told DR. FOSTER that the presence of ergocornine and ergocristine been indicated in his work. MR. H. B. WOODHEAD affirmed that hyoscine did not exist in that plant, and told DR. ROWSON that the extract mentioned was an old one in stock.

### Colorimetric Determination of Morphine and Diamorphine

By R. L. STEPHENS  
[ABSTRACT]

THE quantity of hydrochloric acid given for the hydrolysis of the diamorphine in the British Pharmaceutical Codex assay of linctus of diamorphine and elixir of diamorphine is insufficient and is not sufficiently accurately defined. Ten mils of 2*N* hydrochloric acid should be substituted for 5 mils of dilute hydrochloric acid. Accurate results can be obtained with less attention to the exact concentration of acid if phosphoric acid or oxalic acid is used in place of hydrochloric acid in the British Pharmacopoeia determination of morphine in camphorated tincture of opium. The effects

of most of the variables on the consistency of the results using phosphoric acid in place of hydrochloric acid have been investigated, and temperature has been found to be important. The rate of fading of the reagent is much less if phosphoric acid is used. (From the laboratories of Wright, Layman & Umney, Ltd., 44 Southwark Street, London, S.E.1.)

### Discussion

DR. D. C. GARRETT, Nottingham, said that the B.P.C. assay had been tested without modification and had always yielded good results. MR. W. M. STEPHENSON, Nottingham, said he had tried Mr. Stephens's method on solutions of diamorphine hydrochloride and on linctuses of known strength and the results were found to be too high. Replying, Mr. STEPHENS agreed that the B.P.C. assay process yielded good results but was only reliable with a "pure reference substance."

### Statement on Sugar

Opening the session on September 13, THE CHAIRMAN asked Dr. D. C. Garrett, Nottingham, to make a statement concerning the paper on hydrogen sulphide in syrups containing hypophosphorous acid, read on September 11. DR. GARRETT said that since the paper had been read he had been assured by the research department of a sugar manufacturer that ultramarine was used only in refined sugar intended for cube sugar, when the concentration was  $\frac{1}{2}$  to 1 part per million.

### Determination of Phenadoxone

BY W. H. C. SHAW AND J. P. JEFFERIES  
[ABSTRACT]

PHENADOXONE hydrochloride solutions absorb light selectively in the ultra-violet region, providing the basis for a satisfactory method of assay in the absence of other substances showing absorption at the same wave-length. All methods of chemical analysis based upon the structure of the compound have disadvantages. Among the derivatives of potential value for gravimetric analysis the picrolonate crystallises quantitatively from water under suitable conditions. A gravimetric method of assay as picrolonate is described. Many other basic substances form insoluble compounds with picrolonic acid, and a check on the melting-point of the precipitate is necessary. (From Glaxo Laboratories, Ltd., Greenford, Middlesex).

### Discussion

THE CHAIRMAN said that it was interesting to note to what extent methods used at first for qualitative tests were now being applied quantitatively.

DR. R. E. STUCKEY, London, thought that the acid used would affect the peak maxima. Had any observations been marked different  $pH$  values? DR. W. MITCHELL, London, said that only with iso-phenadoxone did the melting points show a significant difference. What percentage of impurities would be shown by the method? He suggested the use of Girard-type reagent.

DR. G. E. FOSTER, Dartford, suggested the use of the sodium salt of the reagent. Had the writer any information on the detection of phenadoxone in body fluids?

Replies, MR. SHAW told DR. STUCKEY that he had checked the maxima at different  $pH$  values, and that concentrated solutions of hydrochloric acid were not likely to be used. To DR. Mitchell he said that he had found it convenient to conduct the melting point test with a genuine sample of the material under test, using the thermometer to record the difference in melting point. He told DR. Foster that polarography would be the best method of detecting phenadoxone in body fluids.

### Standardisation of the Kjeldahl Digestion Process

BY G. MIDDLETON AND R. E. STUCKEY  
[ABSTRACT]

THERE appears to be a need for a standardised Kjeldahl procedure to deal with the many new pharmaceutical compounds. The amount of sulphuric acid used up in the process is high and varies considerably from compound to compound. Thus the composition of the mixture will be variable. The most satisfactory catalyst for a wide range of compounds was found by experiment to be mercury (in the form of mercuric oxide). If halogens are present in the compound to be assayed mercury is lost in the form of halide. The halogen may, however, be eliminated by a preliminary heating before adding the mercury. The addition of a little dextrose was found to facilitate the breakdown of pyridine derivatives. [A general method based upon these findings, using mercuric oxide, sodium sulphate, the calculated volume of acid plus a fixed excess amount and dextrose (if required), is described.] (From

the analytical laboratories, The British Drug Houses, Ltd., London.)

### Discussion

DR. D. C. GARRETT, Nottingham, asked whether the authors had considered the time factor after clearing the digestion mixture. Was there any significance in the use of zinc instead of porous pot? DR. K. BULLOCK, Manchester, asked if the method had been tried for procaine hydrochloride. PROFESSOR H. BRINDLE, Manchester, said that zinc was useful in his experience probably because of the effect of the stream of hydrogen evolved. Porous pot always lead to "bumping." DR. G. E. FOSTER, Dartford, said that using selenium as a catalyst he had found a loss of ammonia and wondered where that went to. The Kjeldahl estimation was something like sterility tests, for everybody thought that his own method was better than anybody else's. Could the authors offer any theoretical explanation why mercury was the most satisfactory catalyst? DR. R. E. STUCKEY, replying, said that the time factor had been considered in detail. It appeared that there was always a danger of losing ammonia. They had used the catalyst that cut down the time most satisfactorily. No particular significance was attached to the use of zinc. The authors were engaged in work to determine the applicability of the method to some compounds for which it had not previously been used. Certain compounds yielded more satisfactory results if a preliminary reduction with hydroiodic acid was carried out. The method had not been tried with procaine hydrochloride but that would be done. It had not been found that using selenium as a catalyst led to loss of ammonia if suitable precautions to reduce the boiling time were taken. The authors were inclined to attribute the loss of ammonia to partial oxidation. He said that he could not help Dr. Foster with a theoretical explanation of the value of a mercurial catalyst.

### Spectrophotometric Determination of Dimethyltubocurarine and Tubocurarine

By R. V. SWANN.  
[ABSTRACT]

THE method of assay of dimethyltubocurarine iodide formerly used—a spectrophotometric determination of a solution in absolute alcohol—gave variable results. The spectrum of tubocurarine was found to

differ in acid and alkaline solutions, and to show a greater difference from the spectrum of dimethyltubocurarine in alkaline than in acid solution. A technique for the determination of spectrophotometric standards for pure dimethyltubocurarine iodide is described together with a method of determining tubocurarine iodide in the presence of dimethyltubocurarine iodide based upon those standards. (From the research and control division, Allen & Hanburys, Ltd.).

### Discussion

In the discussion which followed the paper DR. N. EVERES (who read the paper in the absence of Mr. Swann) told DR. G. E. FOSTER, Dartford, that chemical methods of determination (for example, with the use of Millon's reagent) had not been found successful. MR. C. J. EASTLAND, London, who was asked by Dr. Evers to reply to a question by the chairman, said that solutions of dimethyl tubocurarine were stable at the natural pH value (6 to 6.4) and could be sterilised by autoclaving.

(To be concluded.)

## A PHARMACIST'S ANTHOLOGY

TAKING advantage of a momentary lull in the conversation I hastened to explain to Monsieur Bertrand the symptoms of my stomach ache, and asked him for some remedy. He didn't even bother to glance at me. . . . Without turning round, he stretched out his right hand behind his back, opened a drawer, groped for a small bottle with a brownish liquid, and knocked the wedding ring on his fourth finger against an empty water glass on the counter. The glass emitted a muted ring, and a woman came out of the back room. . . . She wore a white doctor's coat and had a pencil stuck behind her ear. Monsieur Bertrand gave her the bottle with his left hand, pointing at me with his right, and turned back towards Monsieur Tarouel . . . I wanted to pay for the medicine and handed him a note, but he ignored the money and gave me a short glance—the first since I had come in. He asked me, "You are a musician, young man?" I don't know what made him recognise my profession. . . . When I said I was hired by the Opera he refused my money and shook hands with me. I argued in vain. Later I found out that he never accepted money from anybody even vaguely connected with the Arts.—From Joseph Wechsberg's "Argosy" magazine story "The Singing Pharmacist."


 British Pharmaceutical Conference, Harrogate, 1951
 

## Symposium Session Discussion

Continued from THE CHEMIST AND DRUGGIST, September 29, p. 434

OPENING the discussion on the four papers THE CHAIRMAN said he was interested in the subject as a teacher. He wondered what impact the formulas of the B.P.C. and of the N.F. had on retail practice. The retail pharmacist could not assume that there were no problems for him to solve in this connection. He should be prepared to deal with new preparations when they were introduced as he had to do in the case of penicillin. Difficulties of formulation constantly arose on the B.P. Commission. Care should be taken to ensure that a "bottle-neck of supply" did not arise when a substance was brought into use by being included in the Pharmacopœia. The sublingual route first came into use with the introduction of glyceryl trinitrate tablets. The B.P. did not recognise that method with methyl testosterone as there was insufficient evidence to support it. The pharmacist could not be an expert in pharmacology or physical chemistry but while he "can't lay an egg, he can be a good judge of a good egg from a bad egg."

MR. A. R. G. CHAMINGS, Horsham, asked whether there were any toxicity considerations associated with the use of ethanolamine oleate, a compound which was now official.

MR. J. W. HADGRAFT said that in developing a series of preparations for the treatment of ringworm of the scalp, he had been asked to prepare an ointment containing ammoniacal solution of copper oxide. That proved to be a difficult substance, since none of the usual types of ointment bases, either emulsified or non-emulsified, were suitable, but the combined properties of water miscibility and wax-like consistency of the polyethylene glycols proved suitable. A satisfactory ointment was obtained by incorporating 10 per cent. ammoniacal solution of copper oxide with polyethylene glycol 1,500 and 1 per cent. sorbitan monolaurate polyethylene derivative. Polyethylene glycols were also of value in the formulation of pessaries for the treatment of trichomonal vaginitis. The difficulty was to incorporate the dinaphthyl disulphonic acid derivative with phenol mercuric nitrate into a pessary. The

phenol mercuric compound was incompatible with gelatin and, since it could be produced only in aqueous solution it was unsuitable for incorporating in an oil of theobroma base. The problem had been solved by using a mixture of polyethylene glycols 1,500 and 4,000. Pessaries had been used clinically on a number of patients with little evidence that the polyethylene glycol compounds had an irritant effect. In some patients, solution of the pessary was incomplete, and the residue remained for some time after insertion. Mr. Hadgraft said that the increasing use of polysorbate 80 in pharmaceutical formulation underlined the need for an official preparation of the non-ionic type of wetting agent. It should be possible, by the use of such a substance, to formulate a non-ionic variant of the official emulsifying wax. That would be valuable for use with organic substances containing a cation bearing an electropositive nitrogen atom, as compounds of that type, such as the acridine dyes and antihistamines, were incompatible with emulsifying wax. His experience with flavours for children's mixtures had confirmed the desirability of adding acid to the fruit flavours in common use. In formulation of both a children's mixture of potassium citrate flavoured with syrup of raspberry and an adult mixture flavoured with syrup of ginger, the addition of a small amount of citric acid had resulted in a markedly improved covering power of the flavouring agent.

### "Protected" Preparations

MR. A. W. BULL, Nottingham, said that the aspect of preparations being protected by patents should be considered more now with the frequent introduction of new substances. Professor Berry had rendered a service by clarifying the position with regard to sublingual tablets. The United States Pharmacopœia recognised that route and allowed a maximum disintegration time of four hours for sublingual tablets. With contact lens solutions it should be remembered that it was now accepted that a 1.4 per cent. solution was isotonic with the lachrymal secretion.

(To be concluded)

# What chemists are thinking at IPSWICH

WHILE the main topics of pharmaceutical interest in this important East Anglian town are much the same as in many other areas of the country, local pharmacists see many matters from a different angle and some conditions, circumstances and problems are peculiar to the district. With few exceptions it is considered that the Joint Negotiating Committee should at once commence building up evidence in support of reasonable National Health Service terms. Ipswich pharmacists appeal to their colleagues all over the country, without delay, to send in to the N.P.U., when requested, details of their dispensing. Prior to the introduction of N.H.S., a considerable majority of the private dispensing locally was done by the doctors. Many chemists are now wondering whether their efforts in enlarging their premises are appreciated, and if they were worth while.

Mr. J. W. MORRIS, M.P.S. (managing director, Smalleys Chemists, Ltd.), 6 Carr Street, urged that arrangements should be made without delay for getting together the necessary data to present a case to the Ministry and said that chemists should insist in the negotiations being opened not later than April 1952. "We have, as you have seen," said Mr. Morris, "gone to a good deal of trouble and no little expense in providing a modern dispensary with every possible facility including the handling of therapeutic substances."

For Mr. HARRY J. STARLING, M.P.S., 203 Spring Road, Ipswich, the question of the Council's policy for a higher standard of education was bound up with the terms chemists' contractors receive for providing a first-rate dispensing service. When it became recognised in the contract terms that a contractor could afford to give practically the whole of his activities to N.H.S. dispensing, then, and not till then, would the higher standards of education for entrants be suitable for retail requirements.



Personally, he would be glad to be rid of cosmetics and toilet preparations, etc. "With the possibility of a breakdown in the P.A.T.A. system of price maintenance for proprietaries, I suggest that chemists in every town should get together and agree amongst themselves not to cut prices except by general agreement."

Mr. LEONARD J. N. RUTTERFORD, M.P.S., (manager, J. A. Symonds, Ltd.), 16 Upper Brook Street, agreed that a modern and reasonably high standard of education and technical knowledge was desirable but was concerned about the almost entire lack of provision to ensure that the student received a sound training in business methods.

"I appreciate that the National Pharmaceutical Union is a most useful organisation, but its chief defect is that it represents the employer and not the interests of the employee. The N.P.U. should recognise and organise employee pharmacists, and so with employers provide a united front."

Mr. J. A. NELSON, M.P.S. (superintendent, C. C. Finch, Ltd.), 12 St. Helens Street, Ipswich, declared that most of the N.H.S. work was not dispensing as he had always understood the work. Too many ethicals were prescribed: even so, N.H.S. took up much of chemists' time—far too much for the payment they were receiving. Like most other pharmacists in the eastern counties Mr. Nelson wanted a local representative on the Council. "We shall only get that belated recognition when we get territorial elections."

Mr. A. PARKIN, M.P.S., 627 Foxhall Road, Ipswich, raised the question whether in the event of a price-war the Government would accept purchase tax at lower levels of wholesale prices? "Personally, said Mr. Parkin, "I shall decline to cut prices and shall concentrate on own-name goods."

## TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quantities of standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

**London, October 3**

THE most important event of the week in PHARMACEUTICAL and FINE CHEMICALS was the introduction of new schedules for BISMUTH SALTS on October 1. Under the new schedules the CARBONATE is from 2s. 8d. to 3s. per lb. dearer, according to package, the SALICYLATE and SUBGALLATE about 2s. per lb. dearer, and the SUB-NITRATE about 2s. 4d. per lb. up. It will be recalled that the price of bismuth salts did not change at the beginning of September, when BISMUTH METAL rose by 1s. 6d. per lb. Another advance in the price of metal, this time of 9d. per lb., took place on October 1. On the same date there was an advance of 3s. per cwt. in GLYCERIN when supplied in 14-lb., 28-lb. and 56-lb. tins. The price of glycerin in drums remains unchanged, though the deposit on drums is going up. New maximum prices for SULPHURIC ACID are in operation from October 1. They represent an increase of 14s. per ton in the weak acid (77 per cent.  $H_2SO_4$ ) and 27s. in the strong (more than 84.02 per cent.). The increases are due to the rise in the price of imported PYRITES and in freight rates for both SULPHUR and pyrites.

Buyers in the CRUDE DRUGS market appeared reluctant to place any orders except to meet their immediate needs. ERGOT for shipment rose sharply, following reports that large orders had been placed on the Continent. Present c.i.f. quotations represent an advance of approximately 8s. per lb. over the previous week. Supplies of ANISE (STAR) at origin are short and there are no forward offers. The season for collecting CANADA BALM is now over, and it is reported that all stocks have been shipped. Spot supplies will therefore have to last for the next seven months or so, until spring collecting recommences. Good quality CALUMBA is difficult to locate. Most spot supplies are wormy, and samples from origin are mainly poor and are being rejected as too highly priced. SANDARAC is being collected for the first time in three years; the first supplies will be available for shipment from origin in December. SHELLAC has again been discounted by 2s. 6d. per cwt., and several WAXES have also declined. Spot prime yellow CARNAUBA is 30s. per cwt. lower. Little interest was shown in AROMATIC SEEDS during the week.

The ESSENTIAL OILS market continues dull, though prices are generally maintained. Ceylon CITRONELLA prices from origin are reduced following an announcement that the Ceylon Government had lowered the export duty on the oil to Rs. 50 per 100 lb. Continental "Mit-

cham" PEPPERMINT (*piperita*) is now quoted at 70s. per lb.—a considerable advance over previous quotations.

The export quota of LINSEED OIL for the October-December quarter to established shippers in India will be equal to 25 per cent. of exports effected by each shipper during the basic year selected by him. The export quota of oil to established shippers of LINSEED in lieu of their linseed shipments will be equal to 15 per cent. (converted into oil) of linseed exports made by each shipper during the basic year selected by him. The conversion ratio is 3 tons of seed to 1 ton of oil.

### U.S. Drug and Chemical Report

**New York, September 26**

A STRONGER tone is featured in METHANOL and ACETIC ACID with GLACIAL ACETIC ACID advancing from \$9 to \$11.50 per 100 lb., in tank-cars. Synthetic METHANOL is advanced 2 cents per gall., and makers' tank-car prices are now 34 cents per gall., delivered east. September production of GLYCERIN is virtually sold out. Spot lots of Brazilian MENTHOL are offered at \$10.15 per 100 lb. or 10 cents below previous trade quotations. The Office of Price Stabilisation has exempted from price control more than 200 drugs produced in the United States. They include roots, herbs, leaves, bark, seeds, flowers and berries, both cultivated and wild. Extracts of those drugs, and of drugs that have been processed by means other than desiccation and pulverisation remain, however, under price control. The price of QUICKSILVER has turned upward now that speculative holdings are largely absorbed. Bourbon VANILLA BEANS are firmer, but small lots of manufacturing grades can still be obtained at \$3 per lb.; Prime are quoted at up to \$3.40 per lb. The trend of ESSENTIAL OILS varies, with PEPPERMINT 10 cents per lb. higher and SANDALWOOD, WORMWOOD and CITRONELLA all lower.

### Pharmaceutical Chemicals

ACETANILIDE.—1-cwt. lots are 2s. 11d. per lb. for crystals and 3s. per lb. for powder.

ADRENALINE.—B.P. is nominally from 3s. to 3s. 6d. per gm. for natural and 2s. to 2s. 6d. for synthetic; racemic, 2s. per gm.

ASCORBIC ACID.—1-kilo lots for the home trade are £14 per kilo; 500-gm., £14 10s. per kilo.

BARBITONE.—Current rates per lb are: 1-cwt. lots, 39s.; 28-lb., 40s.; 7-lb., 41s. The SODIUM derivative is 1s. per lb. more than the base.

**BISMUTH SALTS.**—Prices are advanced. The following are the new prices (per lb.) in largest bulk packages:—

	1-cwt.		28-lb.		7-lb.	
	s.	d.	s.	d.	s.	d.
CARBONATE ...	34	4	34	7	39	1
SALICYLATE ...	27	11	28	2	31	10½
SUBGALLATE ...	27	10	28	1	31	9½
SUBNITRATE ...	29	11	30	2	34	1½

**CARBON TETRACHLORIDE.**—In 1-2 carboy lots, B.P. grade is £115 per ton. TECHNICAL, in 40-gall. drums, in less than 1-ton lots, is £66 per ton; 1 ton and under 2 tons, £64 10s.; 2 tons and under 4 tons, £64; 4 tons and upwards, £63.

**CHOLESTEROL.**—In 1-kilo lots, pure is about 142s.; 10-kilo, 133s. per kilo.

**CITRIC ACID.**—British makers quote 1s. 9d. to 1s. 11d. per lb. for 5-cwt. lots less 5 per cent.; 1-cwt., 1s. 9½d. to 1s. 11½d. per lb.

**GLYCERIN.**—Rates at present for chemically pure (B.P.) are as follows:—

	Under 1 cwt.	1 cwt.	5 cwt.	1 ton and under 5 ton.	5 tons and under 25 tons	
	—	1 cwt.	1 cwt.	5 cwt.	10 cwt.	
Minimum deliveries off contract of ..						
Per Cwt.	s. d.	s. d.	s. d.	s. d.	s. d.	
TINS						
14-lb.	315 0	310 6	306 6	302 0	300 6	
28-lb.	313 0	308 6	304 6	300 0	298 6	
56-lb.	309 0	304 6	300 6	296 0	294 6	
DRUMS						
1-cwt.	—	289 0	285 0	280 6	279 0	
2½-cwt.	—	286 6	283 0	278 6	277 0	
5-cwt.	—	—	282 6	278 0	276 6	
10-cwt.	—	—	281 6	277 6	276 0	

25 tons and upwards (minimum delivery off contract of 2 tons), 14-lb. tins, 299s. 6d.; 28-lb., 297s. 6d.; 56-lb., 293s. 6d.; 1-cwt. drums, 278s.; 2½-cwt., 276s.; 5-cwt., 275s. 6d.; 10-cwt., 275s. Extra charges are made for smaller deliveries ex contract of from 6d. to 2s. Tins and cases free, glass packages and iron drums charged extra and returnable. Drums will be credited in full only if returned carriage forward in good condition within four months of date of invoice; if retained beyond six months their intrinsic value only will be credited, which will not in any case exceed two-thirds of the invoice price. Terms: 2½ per cent. monthly account, afterwards net. (Refined pale straw industrial grade is 5s. per cwt., less than above).

**HOMATROPINE HYDROBROMIDE.**—In 1-lb. lots price is 75s. per oz.; 4-oz., 80s., and 1-oz., 85s.

**HYDROCYANIC ACID.**—B.P.C. (Scheele's) is quoted at from 1s. 5½d. per lb. and B.P. at 1s. 1½d. per lb.

**LITHIUM SALTS.**—Current rates for 1-cwt. lots are as follows:—CARBONATE, 9s. per lb.; CHLORIDE (commercial), 8s. 6d.; HYDROXIDE, 8s. 6d.; CITRATE, 7s.; SULPHATE, 6s. 4d.; SALICYLATE, 8s.

**OLEIC ACID.**—Prices for B.P. are from 1s. 7d. to 2s. per lb. and technical from 1s. 5d. to 1s. 10d. per lb.

**POTASSIUM IODIDE.**—1 cwt., 17s. 11d.; 28 lb., 18s. 5d.; 7 lb., 21s. 10d. SODIUM IODIDE, 1 cwt., 19s. 2d.; 28 lb., 19s. 8d.; 7 lb., 23s. 3d.

**SULPHOCARBOLENATES.**—SODIUM PHENOLSULPHONATE, B.P.C. (powder) is now 6s. 5d. per lb. in 28-lb. lots; 7-lb., 6s. 9d. per lb. ZINC, B.P.C., is 6s. 1d. per lb. (28-lb.);

**TANNIC ACID.**—Home-trade rate for LEVIS, B.P. (ex ether) in 1-cwt. lots is 8s. per lb.; B.P. powder is quoted at 8s. 3d. per lb. for the same quantity.

## Crude Drugs

**AGAR.**—Steady. Kobé No. 1 on the spot is quoted at from 9s. per lb., duty paid.

**ALOES.**—Prime Cape on the spot is 260s. per cwt.; forward offers at about 240s., c.i.f., for prompt shipment.

**ANISE (STAR).**—Spot supplies are 270s., in bond, London. No offers from origin.

**BELLADONNA.**—ROOT (over 0.5 per cent. test) is 4s. 6d. per lb. and a parcel of 0.419 per cent. test is offered at 3s. 3d. per lb., duty paid. LEAVES (0.65 per cent. test) are 5s. per lb.

**BENZOIN.**—No. 1 Sumatra block on the spot is quoted at from £28 10s. per cwt.; for shipment, £25 10s., c.i.f. Siam almonds (medium bold) are 37s. 6d. per lb. spot.

**BISMUTH.**—Price increased from October 1. In minimum 5-cwt. lots METAL is now 28s. per lb.

**CALUMBA.**—Natural quoted at 85s. per cwt., spot.

**CAMPHOR.**—Chinese (B.P.) powder on the spot is from 5s. per lb. in bond (5s. 6d. duty paid); ½-oz. tablets are quoted at 6s. 9d. per lb., c.i.f., London.

**CANTHARIDES.**—In original cases of 66 lb., a parcel is offered at 5s. 3d. per lb., c.i.f.

**CINNAMON.**—For shipment (c.i.f.): OOOO, 2s. 11d.; OOO, 2s. 10d.; OO, 2s. 9d.; O, 2s. 8d.; firsts, 1s. 10d.; seconds, 1s. 9d.; thirds, 1s. 8d.; fourths, 1s. 7d.; quillings, 1s. 6½d.; featherings, 1s. 0½d.; chips, 5½d. per lb.

**COPAIBA BALSAM.**—B.P. soluble is in short supply and prices are nominal.

**ELEMI.**—No. 1 on the spot is 4s. per lb. nominal.

**ERGOT.**—Shipment prices of Portuguese are firmer. Present quotations are 52s. upwards per lb., c.i.f.

**GALANGAL ROOT.**—A parcel for shipment from Hong Kong is quoted at 77s. 6d. per cwt., c.i.f.

**GAMBOGE.**—Siam pipe is £45 per cwt., duty paid, spot London.

**GENTIAN.**—French on spot is quoted at 130s. to 135s. per cwt.; for shipment, 110s., c.i.f.

**GUAIACUM RESIN.**—Spot quotations are in the region of 3s. 3d. per lb.

**GUM ACACIA.**—Kordofan cleaned sorts on spot, quoted at 127s. 6d. per cwt.; shipment, 117s., c.i.f.

**KARAYA.**—Unchanged. Superior No. 1 gum on the spot is 420s. per cwt.; No. 2, 310s.

**KOLA NUTS.**—African halves on the spot in London are from 5d. per lb.; to come forward, 4½d., c.i.f.

**KRAMERIA.**—Spot is 120s. per cwt., nominal, and 107s. 6d., c.i.f., for shipment.

**LANOLIN.**—Current quotations for B.P. anhydrous, are about £150 per ton and hydrous, £131.

**LIQUORICE.**—Anatolian natural whole root on spot in London is quoted at from 52s. 6d. to 55s. per cwt.; Syrian natural from 47s. 6d. per cwt. Turkish block juice quotations are from 170s. upwards, according to holder, duty paid. Turkish stick is 240s. per cwt., duty paid. Italian stick, 240s. to 475s. per cwt., duty paid.

**MENTHOL.**—Steady. Chinese is about 80s. per lb., duty paid, and 76s. in bond; Hong Kong quotations are about 77s., c.i.f. Brazilian spot is 79s. per lb., duty paid.

**MERCURY.**—Spot quotations are from £73 to £73 5s. per flask ex warehouse.

**MYRRH.**—Aden selected sorts are quoted at from £17 to £18 per cwt., on the spot. Siftings are from £7 10s. to £8 10s. per cwt.

**PAPAIN.**—Spot supplies of East African No. 1 white are scarce; for shipment, 37s. 6d. per lb., c.i.f., is quoted. Spot supplies of Ceylon sun-dried are about 40s. per lb. and for forward delivery, 36s., c.i.f.

**PERU BALSAM.**—Spot supplies are quoted at 18s. 6d. per lb., duty paid; for shipment, 16s., c.i.f.

**QUINCE SEED.**—Cape on the spot are quoted at 3s. 6d. per lb.

**SANDARAC.**—Crop now being collected and will be available for December-January (1952) shipment from origin at prices still to be arranged.

**SEEDS.**—**ANISE.**—Market unchanged. Cyprus is 160s. per cwt.; Turkish, 150s. in bond, and 160s., duty paid. **CARAWAY.**—Dutch quoted at 120s. per cwt., duty paid, spot London. **CELERY.**—Indian quiet at 1s. 10½d. per lb., spot London. **CORIANDER.**—Market quiet. Spot: Morocco is 97s. 6d. per cwt., duty paid, and 92s. 6d., in bond;

Indian, 125s. per cwt.; Argentine splits, 80s., duty paid. Shipment: Morocco continues firm at 92s. 6d. per cwt., c.i.f. No business reported on the London market at this figure. **CUMIN.**—Market inclined to be a little easier on spot. Cyprus, 227s. 6d. per cwt.; Indian, 222s. 6d.; Malta, 230s. per cwt. Shipment: Cyprus now inviting bids of 197s. 6d. per cwt.; Indian, 220s.; Malta, 210s.; Morocco, 205s., all c.i.f. **DILL.**—Indian is 80s. per cwt., spot London, and for shipment, 68s. per cwt., c.i.f. London. **FENNEL.**—Indian is unchanged at 150s. per cwt. spot London, and 150s. per cwt., c.i.f. London. **FENUGREEK.**—Morocco is 47s. 6d. per cwt., duty paid, spot London or Liverpool.

**SENNA.**—Firm. Tinnevelly wet-crop leaves for October shipment are quoted as follows:—Prime bold, 1s. 6½d.; prime No. 1, 1s. 4½d.; No. 2, prime, 1s. 0½d.; No. 3, prime, 1s., f.a.q., from 10½d. to 11½d. per lb., c.i.f. Pods remain scarce on the spot, business reported done in f.a.q. at 2s. 2½d. per lb., c.i.f., for parcel afloat. For October—November shipment about 2s. 1d. is asked. Alexandria pods are available on the spot at from 3s. 6d. to 6s. 6d. per lb., according to quality.

**SHELLAC.**—Easier. Spot quotations are: F.O.T.N., pure, 387s. 6d.; F.O. Standard 1, 397s. 6d. and fine orange, 410s. to 490s. per cwt., ex-London warehouse.

**STAPHISAGRIA.**—Stavesacre seeds are quoted at 3s. 8d. per lb., duty paid, ex wharf London.

**STROPHANTHUS.**—*Kombé*, 100 per cent. is quoted at 21s. 6d. per lb., on the spot. Spot supplies of *Gratus* now offered at 37s. 6d. per lb.

**STYRAX.**—Spot is from 9s. 6d. per lb., duty paid, and 8s. 6d. in bond.

**TOLU BALSAM.**—Natural on spot is 42s. 6d. to 45s. per lb., and B.P., 32s. 6d. per lb.

**TONKA BEANS.**—Frosted Parà are from 6s. 3d. to 6s. 6d. per lb., spot, and new-crop, 5s. 6d., c.i.f.

**WAXES.**—**E. ES'.**—Dar-es-Salaam on the spot is 625s. per cwt., nominal; October shipment, 570s., c.i.f. Benguella on the spot is 620s., duty paid (in bond, 570s.); October shipment, 525s., c.i.f. **CANDELILLA.**—Spot supplies are offered at 610s. per cwt.; shipment, 605s., c.i.f. **CARNAUBA.**—Prime yellow, spot, 1,120s. per cwt.; afloat, 1,090s., c.i.f.; shipment, 1,050s., c.i.f. Fatty grey, spot, 925s. per cwt.; afloat, 905s., c.i.f.: October—November shipment, 875s., c.i.f. **MONTAN.**—Rebeck crude on the spot is 135s. per cwt., nominal; shipment, 130s. **OURICURL.**—Spot, 1 per cent. impurities, 825s. per cwt., shipment, 750s., c.i.f.

**WITCH HAZEL.**—Leaves on the spot are quoted at 2s. 9d. per lb., and bark at 1s. 6d.

## Essential and Expressed Oils

**ANISE.**—In little demand. Spot quotations are from 10s. 6d. to 11s. per lb.; for shipment, 10s. 1d., c.i.f.

**BAY.**—Scarce. West Indian is quoted at from 15s. 6d. to 17s. 6d. per lb., as to quantity.

**BOIS DE ROSE.**—Brazilian on the spot is from 32s. 6d. to 35s. per lb., as to quantity.

**CINNAMON.**—B.P. oil on the spot is quoted at from 67s. 6d. to 70s. per lb. English bark oil is offered at 21s. to 24s. per oz. Ceylon leaf, 15s. 6d. per lb., spot, nominal; for shipment, 12s. 9d., c.i.f.

**CITRONELLA.**—Spot prices for original drums are: Ceylon, 9s. 6d. per lb. Formosa, 10s. 6d. and Java, 11s. 6d. Forward quotations are: Ceylon, 7s.; Formosa, 7s. 6d. and Java, 9s. 6d., all c.i.f.

**CUBEBS.**—English-distilled is offered at from 50s. to 55s. per lb. Imported is quoted at from 60s. to 65s.

**CUMIN.**—Quotations for English-distilled oil are about 70s. per lb.

**FENNEL.**—Spanish sweet on the spot is quoted at 12s. 6d. to 17s. 6d. per lb.

**GERANIUM.**—Quiet. Bourbon on the spot is from 165s. to 185s. per lb.

**JUNIPER BERRY.**—Imported oils are offered at from 22s. per lb., duty paid; English-distilled is offered at 75s. to 95s. per lb., as to seller and grade.

**LAVANDIN.**—Spot quotations are about 25s. per lb.

**LAVENDER.**—French, 40-42 per cent. linalol, on the spot is about 47s. per lb. Spanish spike is from 19s. to 20s. per lb., on the spot.

**LEMON.**—A weak market. Sicilian hand-pressed (4 per cent. citral) is quoted at prices up to 65s. per lb., c.i.f.

**LEMONGRASS.**—Spot quotations are about 27s. 6d. per lb., and for October shipment, 24s. 6d. per lb., c.i.f.

**LIME.**—Scarce. West Indian distilled is about 70s. per lb., spot, nominal.

**NUTMEG.**—English-distilled oil is about 55s. to 57s. 6d. per lb. Imported oil (B.P.) is about 34s., duty paid.

**ORANGE.**—In short supply. West African is about 38s. 6d. per lb., duty paid.

**OTTO OF ROSE.**—Scarce. Turkish is from 450s. to 500s. per oz., spot, nominal.

**PALMAROSA.**—Spot quotations are nominally from 55s. to 57s. 6d. per lb.

**PATCHOULI.**—Spot supplies of Penang are offered at from 82s. 6d. to 85s. per lb.

**PEPPERMINT.**—Chinese *arvensis* oil on spot is from 32s. 6d. to 33s. 6d. per lb. Brazilian on spot is 28s. per lb. Continental "Mitcham" *piperita* is offering at about 70s. per lb.

**PETITGRAIN.**—Easier. Paraguay is offered at from 32s. 6d. to 34s., spot.

**PIMENTO BERRY.**—English-distilled oil, 85s. per lb. Imported oil is from 45s. to 47s. 6d. per lb., spot.

**PINE.**—*Pumilionis* on the spot is quoted at from 18s. to 20s. per lb.; *sylvestris* is at about 11s. per lb., and Siberian (*abietis*) is about 17s. 6d. per lb.

**ROSEMARY.**—Spanish on the spot is 8s. 6d. per lb., duty paid.

**SANDALWOOD.**—Mysore oil on spot is from 82s. to 85s. per lb. East Indian, Dutch - distilled (95 per cent. santalol), 105s. per lb., duty paid. West Indian is available at 25s. per lb., spot. English-distilled, 90s. per lb.

**SASSAFRAS.**—Brazilian natural is offering at from 6s. 6d. to 7s. 6d. per lb., duty paid, spot, according to grade.

**SPEARMINT.**—Spot quotations are from 55s. to 58s. 6d. per lb., duty paid.

**VETIVERT.**—Bourbon in original drums is 182s. 6d. per lb., spot. For small quantities prices range up to 192s. 6d.

## WORLD TRADE

**Australian Phosphate Production.**—Following a Government plan for stepping-up Australian superphosphate production, pyrite deposits at Nairne, South Australia, are being developed, and the production of fertiliser from pyrites at Mt. Morgan, Queensland, is being investigated.

**Greek Import Modifications.**—The Greek Foreign Trade Executive Board has made the following amendments to the import licensing schedule for the period July 1 to December 31:—Antibiotics: Allocation for private procurement from European Payments Union countries reduced from \$40,000 to \$30,000; other pharmaceutical specialities, drugs and sundries: Total f.o.b. allocation fixed at \$65,000 (purchases from dollar area \$20,000; from E.P.U. countries \$45,000).

**Trade Agreement with Germany.**—Under a trade agreement between the United Kingdom and Germany concluded on October 1, principal exports to Germany from the U.K. will include miscellaneous chemicals. On the other hand Germany will export to the U.K. certain chemicals. The effect of the agreement is that licences will be available for imports from Germany to maintain the rate of imports licensed in the period April-December at approximately one-third higher than the rate provided for in the trade agreement for the second half of 1950.

## TRADE MARKS

(From the "Trade Marks Journal," September 19)

For pharmaceutical preparations (5).

EBIMAR, 692,705, by Evans Medical Supplies, Ltd., Liverpool. VETRAMIN, 698,519, by Glaxo Laboratories, Ltd., Greenford. CHOLAGILON, 699,449, by Thomas Vallance Duncan, Tarbert. STENEDIOL, 700,410, by Organon Laboratories, Ltd., London, W.C.2. ATMONIL, BADIONAL, 700,610-13, by Farbenfabriken Bayer, Leverkusen.

For medicinal preparations for children (5).

CURLY-WEE, 698,070, by Boots Pure Drug Co., Ltd., Nottingham.

For deodorants (5).

FLEXAPHYLL, 700,342, by Fletcher, Fletcher & Co., Ltd., London, N.7.

For infants' and invalids' foods (5).

WALWA, 700,400, by Walwa Milk Foods Proprietary, Ltd., Melbourne.

For photographic apparatus (9).

SINAR, 699,962, by Carl Koch, Schaffhausen.

For lamps for medical and curative purposes (10).

COLLARO, B700,577, by Collaro, Ltd., Barking.

For non-medicated toilet paper (16).

EVEREST, 694 330, by Kitty-Brewster (Paper), Ltd., Aberdeen.

(From the "Trade Marks Journal," September 26)

For photographic chemicals (1).

EKTALURE, 700,654, by Kodak, Ltd., London, W.C.2.

For cosmetics (3).

LA BELLA NUSSY, 689,756, by Helene Winterstein-Vierthaler, Vienna.

For non-medicated toilet preparations and soaps (3).

TRID, 699,859, by F. C. Calvert & Co., Ltd., Bradford.

For pharmaceutical preparations (5).

ALLERCUR, LIVONAL, 696,736-37, by Schering Aktiengesellschaft, Berlin. NIBIATRON, 699,632, by Aktiebolaget Bofors, Bofors. LUTO-VOCYCLIN, 700,127, by Ciba, Ltd., Basle. CATENAL, LAGITIM, 700,615-18, by Farbenfabriken Bayer, Leverkusen.

For all goods (5).

VISCARDIN, 698,123, by The British Drug Houses, Ltd., London, N.1.

For aspirin (5).

ASPIRETS, 698,472, by G. T. Fulford Co., Ltd., London, W.1.

For medicinal preparations for human use (5).

ANALGILON, 699,445, by Thomas Vallance Duncan, Tarbert. FESOVITE, MARROVITE, 699,614-15, by D. Mawdsley & Co., Manchester.

For veterinary preparations for poultry (5).

NUTOSAN, 699,700, by Boots Pure Drug Co., Ltd., Nottingham.

For medicated foot powders (5).

COMMANDO, 700,012, by Perso Chemicals, Ltd., London, S.W.1.

## PRINT AND PUBLICITY

Medical Leaflets.—Leaflets, folders and booklets, etc., obtainable from manufacturers include those listed below:—

ABBOTT LABORATORIES, LTD., 3 Wadsworth Road, Perivale, Middlesex: Vi-Daylene (4-p. leaflet); "Prescription Reference Handbook" (52 pp.).

PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD., Dagenham, Essex: "M. & B. 693, Sulphapyridine" (third edition of 20-p. booklet); "Flaxedil" (second edition of 28-p. booklet); "Embequin" (third edition of 16-p. booklet); "Stovaine" (third edition of 16-p. booklet); "Neptal" (seventh edition of 24-p. booklet); "Sulphatriad" (4-p. card); "Penicillin" (third edition of 52-p. booklet); "Propamidine—M. & B." (sixth edition of 24-p. booklet).

New Display Units.—Richard Hudnut, Ltd., Power Road, London, W.4, have produced display



units to hold (a) three 2-oz. bottles of their enriched Creme shampoo, and (b) one 2-oz. bottle of Creme Rinse.

Sponsored Radio Programme.—Silvikrin Laboratories, Ltd., Honeypot Lane, Stanmore, Middlesex, are advertising their shampoos every week night on Radio Luxembourg in a programme called "Movie Magazine." The new Silvikrin cream shampoo is at present being featured.

Advertising Campaign.—Thermogene products are being advertised in a comprehensive Press and poster campaign. New show material is also being supplied by J. C. Eno, Ltd., King George's Avenue, Watford, Herts.

## ANSWERS TO QUESTIONS

### ON P. 465

1. 0.000001 is  $10^{-7}$  and so the  $pH$  is 7.

2. Yes. Because when a solution is said to be acidic to a certain indicator it means that the solution gives the acid colour with that indicator. A solution of  $pH$  8, for example, would be acidic to phenolphthalein and yet in the true sense of the word it is alkaline since the  $pH$  is greater than 7.

3. None. But the more concentrated the buffer solution the greater (volume for volume) is its resistance to change in  $pH$  on addition of acid or alkali.

*New Pack!*



HERE is the new 'Nervone' pack, eye-catching, distinctive in its ivory and bronze blue colours! Displayed on your counter or in your window it will serve as a reminder to your customers that YOU can supply. Remember every 'Nervone' sale means a profit of ONE SHILLING and SEVENPENCE, and even a modest display, such as the new pack provides, will move your stock with greater speed and enable you to take full advantage of the demand created by our large-scale advertising.

Retail 5/10 and 23/3 (inc. tax). Wholesale 50/8 and 202/8 per doz. (inc. tax)

**P.A.T.A.**

**'NERVONE,' CECIL HOUSE, HOLBORN VIADUCT, LONDON, E.C.I.**

# The BIGGEST ADVERTISED Cosmetic LANOLIN

Westbrook's TWELVE Luxury Lanolin is the *only* Nationally advertised cosmetic lanolin, and the advertising has been launched with full-pages and half-pages in the cream of Woman's Magazines. It will be vigorously persisted in, and in the next seven months the 3,000,000 women most interested in cosmetic advertising will see TWELVE announcements *on an average of ten*

times each, even if each advertisement is seen only once. TWELVE is being forcefully publicised as the perfect nutrient cream for Dry Skins—double homogenised for extra rapid absorption. TWELVE Luxury Lanolin has a wonderful advertising story and is presented as befits a quality product. Be ready with stocks to satisfy the demand. The Tubes retail at 2s. 6d. and the Jars at 4s. 7d., both inclusive, and especially attractive trade terms are available.

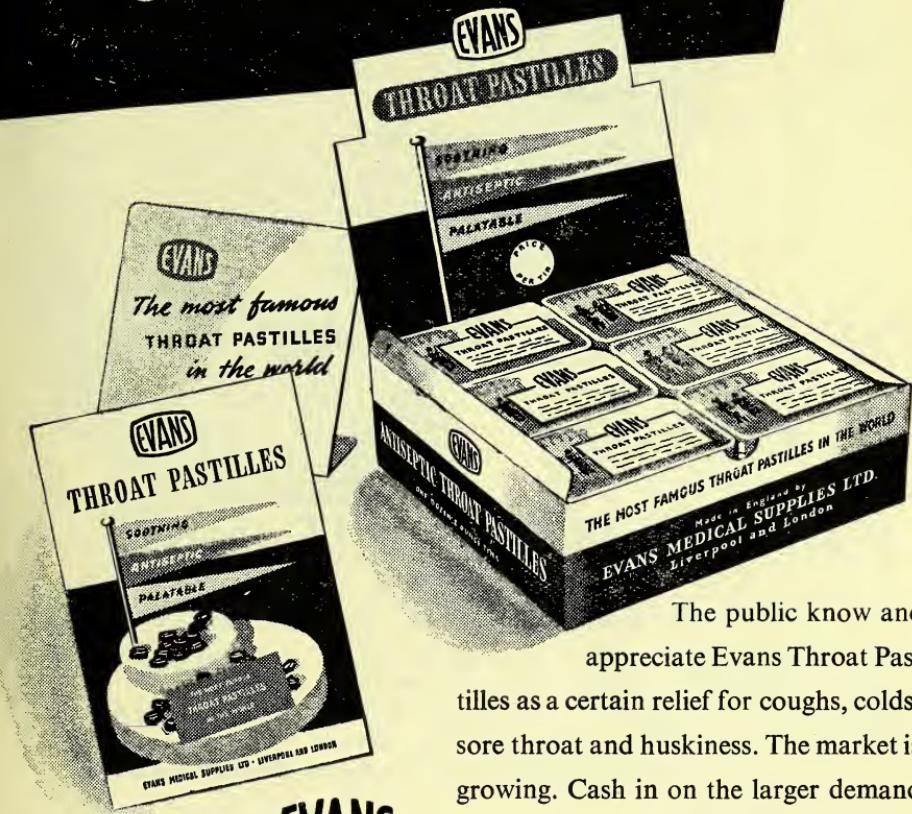
WESTBROOK LANOLIN COMPANY,  
Dept. CD, Duckworth Lane,  
BRADFORD, Yorks.

Made by WESTBROOK-  
Largest Makers of Lanolins  
IN THE WORLD!

In addition to TWELVE there are Westbrook Luxury Lanolin FOUNDATION CREAM at 4s. 11d. and HANDMAID Lanolin Barrier Cream at 2s. 11d. and 4s. 6d. retail, inclusive.



# Sell more of the 'Most famous Throat Pastilles in the world' through these sales aids



**EVANS**  
**THROAT**  
**PASTILLES**

Made in England by

**EVANS MEDICAL SUPPLIES LTD**

LIVERPOOL AND LONDON

Overseas Companies and Branches: Australia, Brazil, Eire, India, Pakistan, South Africa, South-East Asia

The public know and appreciate Evans Throat Pastilles as a certain relief for coughs, colds, sore throat and huskiness. The market is growing. Cash in on the larger demand this winter. These displays will help to lift the seasonal sales to new records. Be ready with adequate stocks. Display matter as illustrated supplied free.

IN MATTERS CONCERNING FEMININE HYGIENE...

SHE LOOKS TO  
*you* FOR  
PROFESSIONAL ADVICE

The responsibility to give professional advice when called upon has placed pharmacy in a position of high esteem and it is a service especially valued by women. When it is a question of family limitation it is always wise to suggest a Rendells Product. As pioneers of the chemical contraceptive we can now offer a range of preparations to suit every individual requirement



**RENDELL PESSARIES**  
**RENDELL GELS**  
**RENDELL-FOAM**  
**RENDELL-CREAM**

*Rendells*  
PRODUCTS FOR FEMININE HYGIENE

**W. J. RENDELL LTD., ICKLEFORD MANOR, HITCHIN, HERTS.**

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The wise folk who seek immunity from colds with Esobactulin are now starting their autumn course. ORDER STOCKS and DISPLAY NOW—

The complete course—6 capsules taken over 5 days—is designed to give most people 3 months' immunity from colds.

Retail price 8/3 inc. P.Tax

From all Wholesalers

33 $\frac{1}{3}\%$  DISCOUNT—13 to the dozen

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SOUTHON LABORATORIES LIMITED  
UPPER RICHMOND ROAD, LONDON, S.W.15

**ESOBACTULIN**  
protection against colds



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**ENTROSALYL**

Owing to the recent heavy advances in the cost of salicylates we are compelled to increase, as from October 1st, 1951, our prices of the small sizes of ENTROSALYL (Standard and Vitaminised) as hereunder:—

	RETAIL PRICES per unit including P.T.	TRADE PRICES per doz. plus P.T.
<b>ENTROSALYL (Standard) 50's</b>	5/6d.	36/-d. 11/7d.
<b>ENTROSALYL (Vitaminised) 50's</b>	7/3½d.	48/-d. 15/5d.

*Less usual cash discounts.*

**N.B.** There is no increase in price of the 200 and 1,000 capsules dispensing packs of either preparation.

**CONTINENTAL LABORATORIES LTD.**  
101 Great Russell Street • London W.C.1

Telephone: MUSEum 2042-3

Telegrams: Taxolabs, Phone, London



Most children need multivitamin supplementation of the diet. There may be instances where children receive such a very full diet that vitamin supplementation will not provide any advantage, but this must be exceptional. **Vi-Magna** combines essential vitamins needed for daily supplementation of the diet in children.

There are, unfortunately, no pathognomonic signs of multiple vitamin deficiency, but many cases of undiagnosed, borderline, subclinical deficiency are believed to exist. Prevention is the best rule !

**FORMULA—Capsules :** Each capsule contains Vitamin A, 5,000 Int. Units ; Vitamin D (Calciferol), 500 Int. Units ; Thiamine HCl (B<sub>1</sub>), 3.0 mg. ; Riboflavin (B<sub>2</sub>), 2.0 mg. ; Niacinamide, 20.0 mg. ; Calcium Pantothenate 1.0 mg. ; Pyridoxine HCl (B<sub>6</sub>) 0.2 mg. ; Ascorbic Acid (C), 75.0 mg. ; FOLVITE\* Folic Acid, 1.0 mg. with excipients, flavouring and artificial colouring.

Packages :  
Bottles of 30,  
100 and  
1,000 Capsules.

Prescribe **Vi-Magna** to Prevent Multi-vitamin Deficiency in Growing Children !



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BUSH HOUSE, ALDWYCH, LONDON, W.C.2.

TEMPLE BAR 5411

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and make your lipstick last longer. Keep your lips smooth and perfectly groomed for hours on end and keep your lipstick fast. Just brush LIP-COTE over with LIP-COTE, the clear and colourless lipstick protectant, the new "MUST-DO-IT."



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is based on the formula of the Radian B Liniment. It is specially prepared for those taking strenuous exercise and relieves muscular stiffness, bruises, sprains, rheumatic pain. It is invaluable as a prophylactic before and after exercise.



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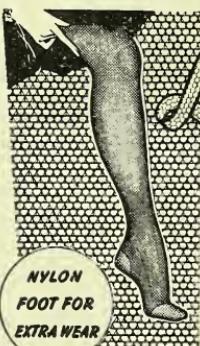
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### FINE ELASTIC NET TO MEASURE

and you don't even have to stock them—to sell them!

Lastonet surgical stockings are sold for you through NATIONAL & MEDICAL JOURNAL ADVERTISING. All you need is a supply of measurement forms which we will gladly send to you together with display material and particulars of trade discount. Write today!



E-L-A-S-T-I-C  
NET STOCKINGS

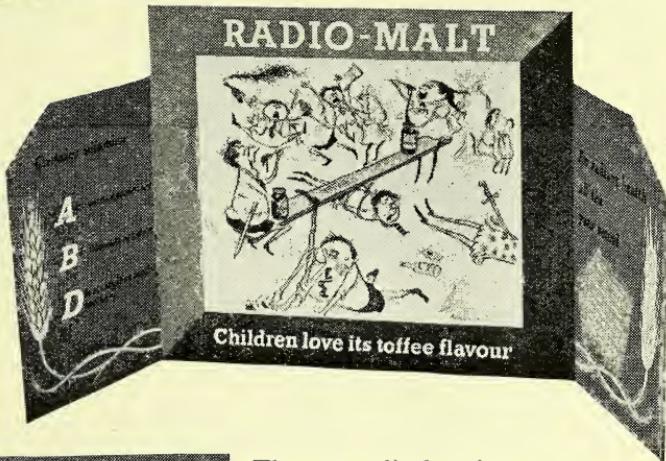
- ★ MADE ONLY TO MEASURE
- ★ INVISIBLE under ordinary stockings
- ★ COOL TO WEAR

LASTONET PRODUCTS LTD. Carn Brea, Redruth, Cornwall



# 'RADIO-MALT'

for radiant health  
The phrase your customers  
will remember

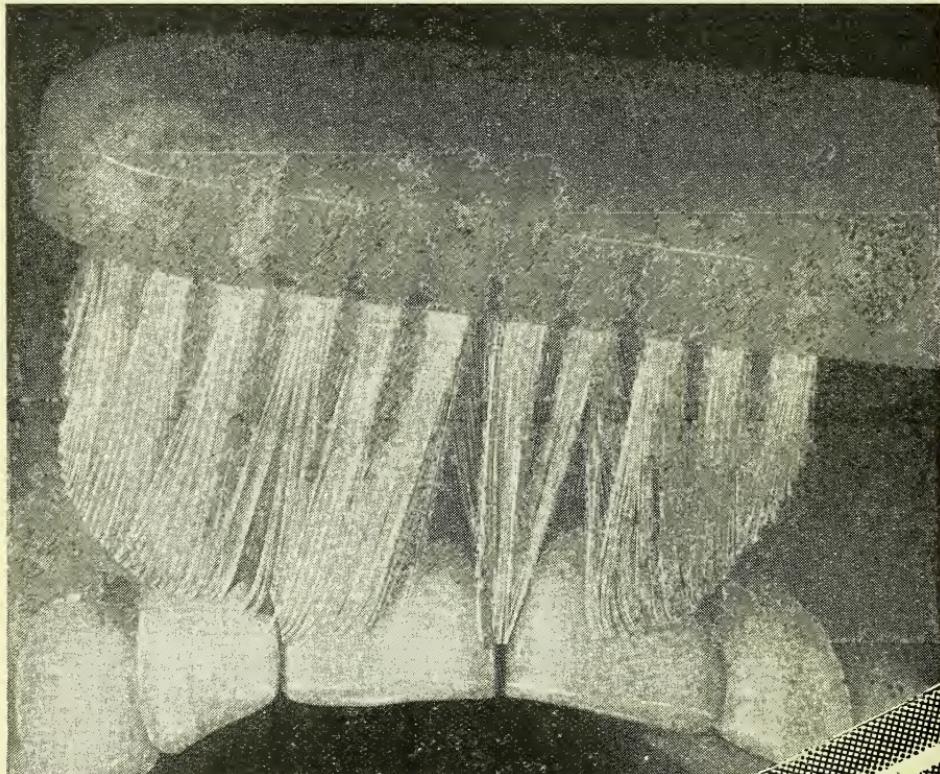


These new display pieces—a folding display stand, a winged display screen and crowners for 1 lb. and 2 lb. jars—are available to remind customers of Radio-Malt's standardised vitamin content and its pleasant toffee flavour. Write to B.D.H. or ask your B.D.H. representative for details of bonus terms on quantity purchases of Radio-Malt.

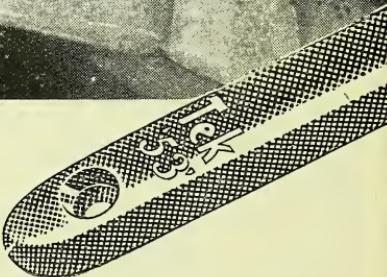
THE BRITISH DRUG HOUSES LTD. LONDON N.1

# The new Tek '53'

TRADE MARK



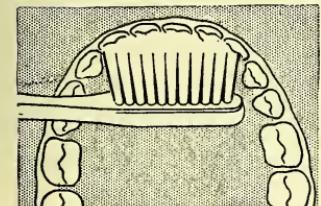
This magnified photograph of the TEK '53' in action shows how the supple Teklon bristles do their job—the tufts penetrating gently but deeply in the interstices while others yield in contact with teeth surfaces



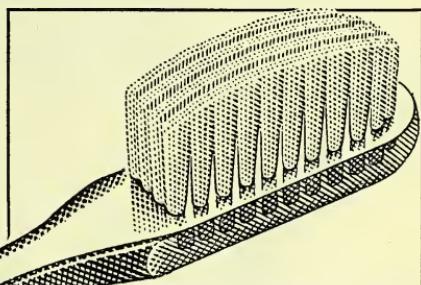
# —an outstanding advance in dental hygiene!

ONCE AGAIN Johnson & Johnson are in the lead with a new toothbrush development—the introduction of a brush with a new extra-tufted head of finer, suppler Teklon. For years the Dental Profession have advocated a more resilient, densely-tufted brush which cannot lacerate the gingival margin (inviting bacteria invasion in tender gum tissue) but which has a more searching, better polishing action. TEK '53' fulfils these requirements. Over 1,600x.008 strands, in 41 tufts, give deep penetration between teeth, gentle stimulation of the gums

and, in  
Tek's new  
profile-head design, a  
perfect polish to teeth surfaces.



In the Tek '53', as in all the Tek range, the famous curved-profile short-head makes certain of reaching every part, back and front, of every tooth



- **TEKLON-bristles**, made from .008 TEKLON —more supple and finer than ordinary nylon.
- **Extra tufts**—41 tufts, 20 strands a tuft, making 1,640 TEKLON bristles —complete contact made with every enamel surface of the teeth.
- **New profile head**—makes fullest use of extra bristles and facilitates all-round cleaning.
- **New range of lovely opaque handle colours.**



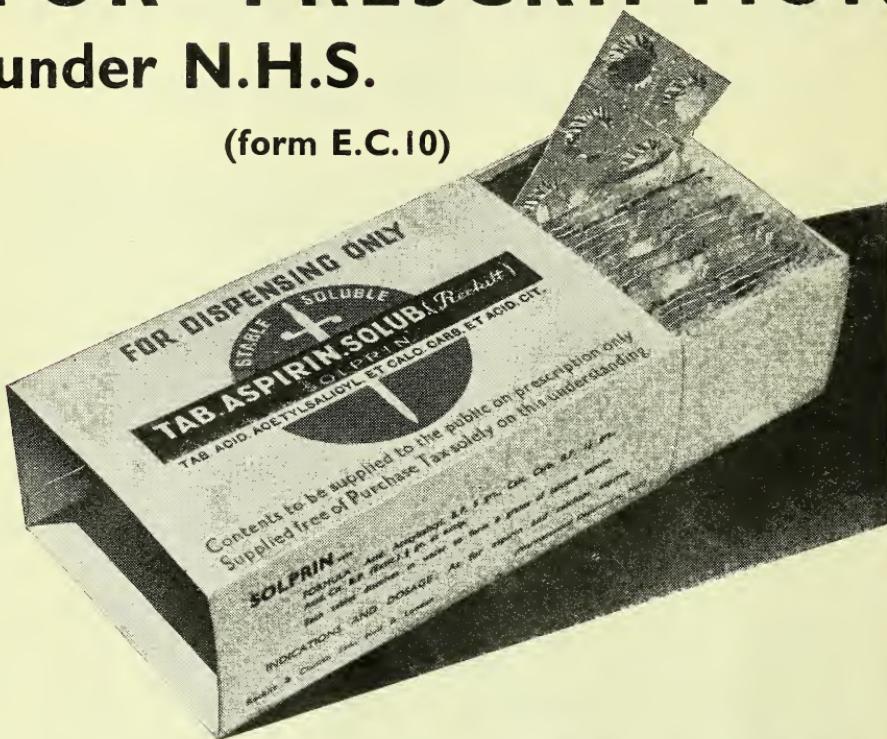
## AVAILABLE NOW

TRADE PRICE 16/- per dozen. Order TEK '53' with your normal Tek requirements and take full advantage of the generous quantity bonuses. Johnson & Johnson (Gt. Britain) Ltd., Slough. Send your order now!

A *Johnson & Johnson* PRODUCT

# FOR PRESCRIPTION under N.H.S.

(form E.C.10)



RECKITT & COLMAN LIMITED announce the introduction of 'Solprin', a soluble aspirin for the dispensing of prescriptions. Solprin is not advertised to the public.

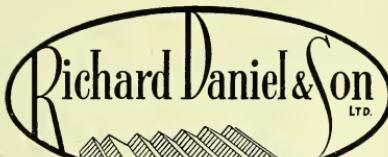
The problem of prescribing calcium aspirin free from decomposition products is solved. Solprin, a stable preparation in tablet form, combines the

convenience of aspirin tablets with the therapeutic advantages of pure calcium aspirin. Its analgesic, sedative and anti-rheumatic properties, and the fact that even in large amounts it is unlikely to produce gastric disturbances, have been confirmed over a period in clinical trials carried out in leading hospitals.

**The SOLPRIN** prescription pack contains 300 tablets, air sealed in foils of 6. Price 7/- per box (free of P.T.)

AVAILABLE IN THE U.K. AND NORTHERN IRELAND ONLY

FOR CHEMISTS



DRUGS

SUNDRIES

Manufacturing Chemists

PILLS • TABLETS  
PROPRIETARIES

HEAD OFFICE &amp; WORKS: MANSFIELD ROAD, DERBY. Tel: 48266 (4 lines)

BRANCH WAREHOUSE: GROSVENOR ST., ASHTON under LYNE. Tel: 2816 (3 lines)

SCOTTON BANKS SANATORIUM  
PHARMACEUTICAL DEPARTMENT  
STERILE SOLUTION

AQUA

COUNTY HOSPITAL, YORK  
tablet

Wandsworth Hospital Group  
St. James' Hospital  
One tablet to be taken  
at night

tablets should be kept  
out of the reach of  
children

## LABELS for HOSPITALS

Send for Catalogue

The M.  
One TEA spoonful to  
taken three times a day.

STERILE BOTTLE

NAME.....  
WARD.....

Pathological Laboratory  
SAXONDALE HOSPITAL

SOUTHAMPTON  
EYE HOSPITAL

MEMORIAL HOSPITAL  
ICAL DEPARTMENT  
SPORT

THE MOUTH WASH

GLYCER. THYMOL. CO.

WARD

PHARMACEUTICAL DEPARTMENT  
AL Gwent HOSPITAL

cc.  
00,000 units per c.c.  
PENICILLIN INJECTION B.P.

FOR INTRAMUSCULAR INJECTION.  
CONTAINS A BACTERIOSTATIC.  
HEXHAM GENERAL HOSPITAL

WARD:.....  
IN OF PENICILLIN  
.....,000 UNITS PER MIL.  
MILS. BY INTRAMUSCULAR  
INJECTION.

DOSE:.....  
STORE BELOW 50, FAHR.  
USE BEFORE:...../...../195

THOMAS WAIDE & SONS LTD., LEEDS

# VITAMINS LTD.

## "TWILIGHT HEALTH" WARNING HEEEDED

At the Annual General Meeting held recently, Mr. H. C. H. Graves, Chairman, said they had maintained the present level of dividend for very many years, so that, to the extent of that dividend, their shares had properly come to be regarded, in their class, as "gilt-edged." The continuity of policy had unquestionably enhanced the standing of their Company's shares in the market, but with current inflationary trends, it had clearly resulted in a lower real return to shareholders.

The Consolidated Balance Sheet showed that Current Assets, at a total of £512,637 had increased by £175,797, in the year following on an increase, in the previous year, of £110,775. The explanation was that turnover was, once again, by far the highest in the Group's history. This had led to the necessity for increased stocks.

The vital necessity for a Research Department such as they had had for over 20 years was now widely accepted. The facilities which they now had on their 300-acre home at Walton Oaks were unrivalled among comparable commercial organisations here.

Their Research Department served the pharmaceutical side of their business, by a stringent examination and control of their manufactured goods, by the formulation of new products and their testing, and by the actual invention of processes or the synthesis of materials which were either expensive or obtainable only against dollar payments.

The Company was unique in one respect—that one of its best known pharmaceutical products, Complevit, when prescribed, was considerably less costly to the country than the officially recommended "equivalents" in the National Formulary. A medical man prescribing these so-called "equivalents" (they were not really equivalents) would cost the country something like 50% more than if he simply prescribed Complevit.

## STEADY INCREASE IN BEMAX SALES

The role of Bemax, as the best known natural vitamin-protein-mineral supplement, had received ever-increasing attention during the past year. To some extent this had unquestionably been due to the admirable series of announcements in the RADIO TIMES and other media under the heading "All in a doctor's day," in which the uses of Bemax—literally in the seven ages of man—and woman, too) had been dealt with in an entertaining but authoritative manner.

He had also stated last year that they heard then of many complaints of a feeling of frustration, of undue fatigue or of being under par. They still heard of listless children and of infants who did not grow as rapidly as they should. The National Health Service would treat them and us, when we were ill, but what about when we were not ill but below par? It was in that twilight stage, that stage of betwixt and between, that we most dramatically benefited from the steady use of Bemax. How different many of the frustrated and listless would be on Bemax. Judging by the sales during the past year, his words for once, he thought, had been heeded.

To recall what he had said last year—because it was a very useful piece of information—the position in brief was that if Bemax were used for

SANCTIONED ON  
N.H.S. Prescriptions (Form E.C.10)

# EPHAZONE tablets

*The rational, symptomatic  
remedy for  
bronchial spasm in  
ASTHMA & BRONCHITIS*

Containing in each tablet:  
Ephedrine  $\frac{1}{4}$  grain - Theobromine  $\frac{1}{2}$  grain  
Phenazone 1 grain - Calcium gluconate  $\frac{1}{4}$  grain

*This preparation is not advertised  
to the general public.*

# EPHAZONE LTD

59 BROOK ST. LONDON WI TEL: MAYFAIR 5496

E.2

"VERLOG" (Trade Mark)  
SURGICAL ELASTIC HOSIERY  
Belts, Trusses, Suspensory Bandages, etc.  
ATHLETIC SUPPORTS  
Knee Caps, Anklets, Jockstraps  
THOS. GLOVER & SON, LTD., CARLTON, NOTTINGHAM  
Tel.: 58227 (2 lines). 'Grams: Verlog, Nottingham

the maintenance of Health, it was a food and not prescribable; but if it were used as it so often was in the treatment of disease, it was prescribable.

## MARKED SUCCESS OF NEW PRODUCTS

The two new products mentioned last year—Vitavel Syrup and Befortiss Elixir, had both distinguished themselves by the high degree of acceptance which they had secured in a relatively short space of time. Vitavel Syrup, in particular, was attractive in flavour to young and old alike and provided an ideal method of administering vitamins A, B, C and D in almost all circumstances—from slight indisposition to grave illness. Its convenience, its palatability, its effectiveness and its inexpensiveness all commend it, and hospitals, to whom all these factors were important, were among the largest users.

Befortiss Elixir had gone ahead possibly quicker than any of their products. After Bemax itself, Befortiss was the pioneer B-complex preparation in the pharmaceutical field and its continued pre-eminence was particularly gratifying to them for this reason.

The report and accounts were adopted.

# DIXOR BEAUTY PREPARATIONS

DIXOR EXTENDS THE RANGE OF VELOCITY PRODUCTS

with Velocity Foundation Cream, Velocity Skin Food and Velocity Cleansing Cream. When you next order Velocity de Dixor Powder Cream include these new preparations. Display them side by side and create sales. Each preparation performs a special task in the art of achieving complexion beauty.

*Velocity*  
de **DIXOR**

## The ORIGINAL combined POWDER CREAM

A modern cosmetic, giving the skin a natural rose-petal elegance. Presented in five delightful shades, for all the year round—day or night—make-up. Tubes packed in attractive display outers of one dozen, and jars in display outers of half-dozen.

Shades:— PEACH  
IVORY OCHRE  
NATURAL SUNGOLD



TUBES

POTS	No. 2	No. 3
TRADE 12/- doz.	5/2 doz.	9/6 doz.
RETAIL 2/6 each	1/1 each	2/- each

Ideal for use as a powder base, and make-up foundation. Soothes the skin when chafed and prevents roughness. Tubes only. One dozen in attractive display carton.

TRADE 9/6d. doz.  
RETAIL 2/- each.



*Velocity* **SKIN FOOD**

Restores any deficiency of natural oils, keeping the skin supple and free from blemishes, wrinkles and rough and dry patches. Tubes only. One dozen in attractive display carton.

TRADE 9/6d. doz.  
RETAIL 2/- each



*Velocity* **CLEANSING CREAM**

Provides the most effective way of removing old make-up. Particularly suitable for skins that tend to dryness. Tubes only. One dozen in attractive display carton.

TRADE 9/6d. doz.  
RETAIL 2/- each.

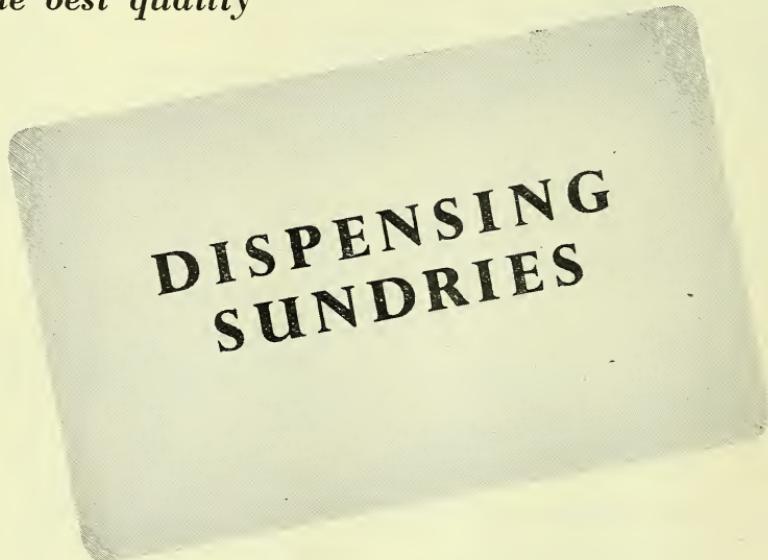


**DIXOR LTD.**

**ST. LEONARD'S WORKS, MORTLAKE, S.W. 14.**

# FOR YOUR WINTER DISPENSING

*Make sure you have adequate supplies  
of the best quality*



DISPENSING  
SUNDRIES

DISPENSING BOTTLES

CORKS

GLASS JARS

DROP BOTTLES,  
WITH PIPETTE

DISPENSING BALANCES

FUNNELS AND LOTION BOWLS

FILTER PAPER

MORTARS AND PESTLES

PAPER AND TWINE

BOXES, PILL AND OINTMENT

POWDER AND PESSARY BOXES

DISPENSING MEASURES

COUNTER SCALES

SPATULAS AND STIRRING RODS

PESSARY AND SUPPOSITORY  
MOULDS

OINTMENT SLABS

*All goods carriage paid  
in free packages*

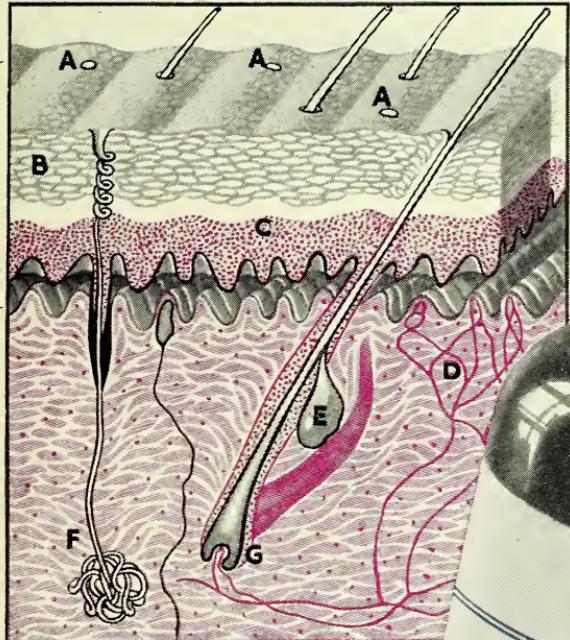
*Prompt attention given  
to urgent post orders*

MACDONALD & SON LTD.

... as you must be careful  
about what you advise  
for skin troubles...

EPIDERMIS

DERMIS or DEEP SKIN



Just as a matter of interest we show a 'close up' cross-section of the skin—that complex and delicate body-covering so prone to the troubles which ANTEXEMA quickly solves.

- a PORES
- b HORNY LAYER
- c LIVING CELLS
- d CAPILLARIES
- e SEBACEOUS GLAND
- f SWEAT DUCT
- g HAIR ROOT

... may we advance the claims of ANTEXEMA (Liquid Zyloplastin)? Quickly effective in ECZEMA, INSECT BITES, ACNE, CHILBLAINS, CHAPPED SKIN, RASHES. This cream is prepared from an uncommonly good formula after long and searching experiment.



**ANTEXEMA**  
(Or Liquid Zyloplastin)  
(Registered)

For Eczema, Insect Bites, Acne,  
Chilblains, Chafed Skin and similar  
skin troubles of babies and adults  
Contains: Yellow Soft Paraffin 35.4 Grams  
Acacia 12.4 Boric Acid 1.5 Almond  
Oil or Nut Oil 1.5 Water 49.2  
Proprietary  
Scientifically

**POTTER & CLARKE LTD**

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Phone: BLACKFRIARS 8734 Grams: Horehound, Manchester

62 ORBISTON STREET, MOTHERWELL

Phone: MOTHERWELL 1413 Grams: Horehound, Motherwell

Agents in Northern Ireland:

HAROLD MITCHELL & Co. Ltd., 321 Grosvenor Rd., BELFAST. Tel. 24356



# Why you should Sell

## WANDER

BRAND

### MALT & COD LIVER OIL



BECAUSE of its unsurpassed quality and its ready acceptance by the public, Wander Brand Malt Extract and Cod Liver Oil is a product which the pharmacist can recommend with full confidence, and in his own best interests. Wander Brand Malt Extract and Cod Liver Oil is outstanding in its field and its pharmaceutical excellence is recognized by physicians. The Cod Liver Oil used is the best obtainable and the Malt Extract is specially prepared by A. Wander Ltd. who are leading authorities on its manufacture.

With its attractive appearance and toffee-like flavour, Wander Brand Malt Extract and Cod Liver Oil is thoroughly enjoyed by children and adults.

*On the P.A.T.A.*

*Trade Prices: 1 lb. Jars 20/6; 2 lb. Jars 38/6  
Exempt from Purchase Tax*

*Trade Prices for 1 gross 1 lb. or equivalent:  
1 lb. Jars 20/3; 2 lb. Jars 38/-  
Exempt from Purchase Tax*

*Retail Prices: 1 lb. Jars 2/3; 2 lb. Jars 4/3*

**NOTE**—Also supplied if required with attractive labels bearing your own name at competitive prices.

Attractive showcards available

*For further details write to:*

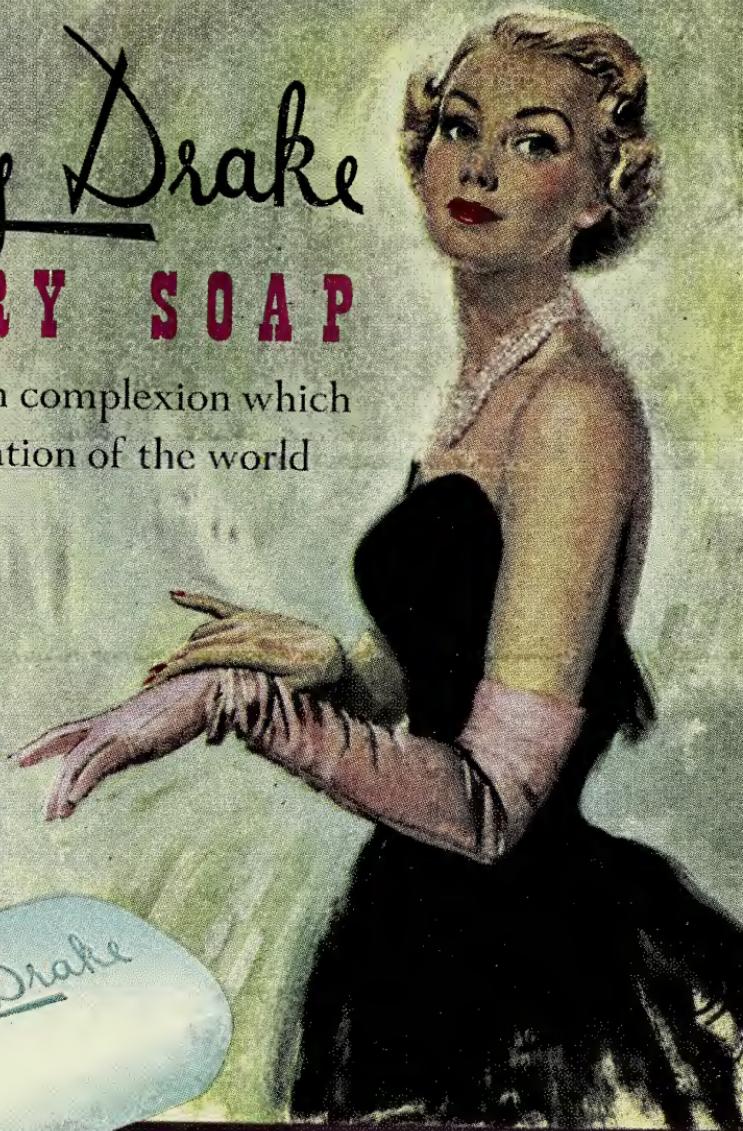
**A. WANDER LTD.**

42 UPPER GROSVENOR STREET,  
GROSVENOR SQUARE,  
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# Mary Drake

## LUXURY SOAP

for that English complexion which  
is the admiration of the world



A CHOICE OF SIX EXQUISITE  
PERFUMES IN SIX PASTEL SHADES

Bouquet · Magnolia · Bonbon · Jade · Honeysuckle · Sandalwood

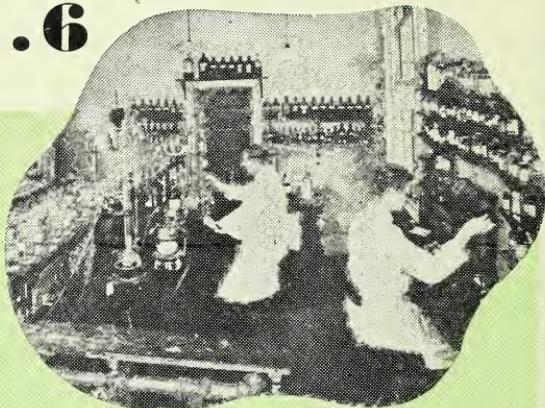
ee oz. tablet 1/3 (122/8 gross inc. tax) Six oz. tablet 2/6 (245/4 gross inc. tax) Ten oz. magnum 4/2 (408/- gross inc. tax)

MARRY GREEN LIMITED, AJAX WORKS, BARKING, ESSEX

# Where experience counts.....6

Careful assay of medicinal plants and expert analytical control during manufacturing processes call for specialised skill and experience.

The wide knowledge gained in over 100 years' manufacturing experience enables William Ransom & Son Ltd., to ensure products of the highest quality.



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EXTRACTS  
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MANUFACTURING CHEMISTS AND GROWERS OF  
 MEDICINAL PLANTS FOR OVER A CENTURY

**WILLIAM RANSOM & SON LTD.**  
 Hitchin      Hertfordshire      England

*In penicillin therapy an aqueous suspension of the procaine salt of penicillin G is a most convenient form of administration*

**'DISTAQUAINE' G**  
brand

Dry substance consisting of procaine penicillin and suspending agents for the extemporaneous preparation of an aqueous suspension for intramuscular injection.

Vials of 300,000, 900,000, and 3,000,000 units.

**'DISTAQUAINE' FORTIFIED**  
brand

Dry substance consisting of procaine penicillin plus potassium penicillin and suspending agents for the preparation of an aqueous suspension. The inclusion of the potassium salt provides an immediately accessible dose of soluble penicillin in addition to the prolonged action of the more slowly absorbed procaine salt.

Vials of 400,000 and 1,200,000 units.

**'DISTAQUAINE' SUSPENSION**  
brand

'Distaqueine' G in ready prepared aqueous suspension, an additional convenience for the busy practitioner.

Vials of 10 ml. (300,000 i.u. per ml.)

**Advantages of  
'DISTAQUAINE'  
brand preparations**

- *Aqueous, containing neither oil nor wax*
- *Easy to prepare and administer*
- *Least possible pain on injection*
- *Effective blood levels up to 24 hours following administration*
- *Dry syringe unnecessary*
- *Equipment easily cleaned after use*

*Distributed by:*

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*'Distaqueine,' trade mark, the property of the manufacturers*

**THE DISTILLERS COMPANY  
(BIOCHEMICALS) LIMITED**

SPEKE

LIVERPOOL

# 4 BIG SALES-WINNERS



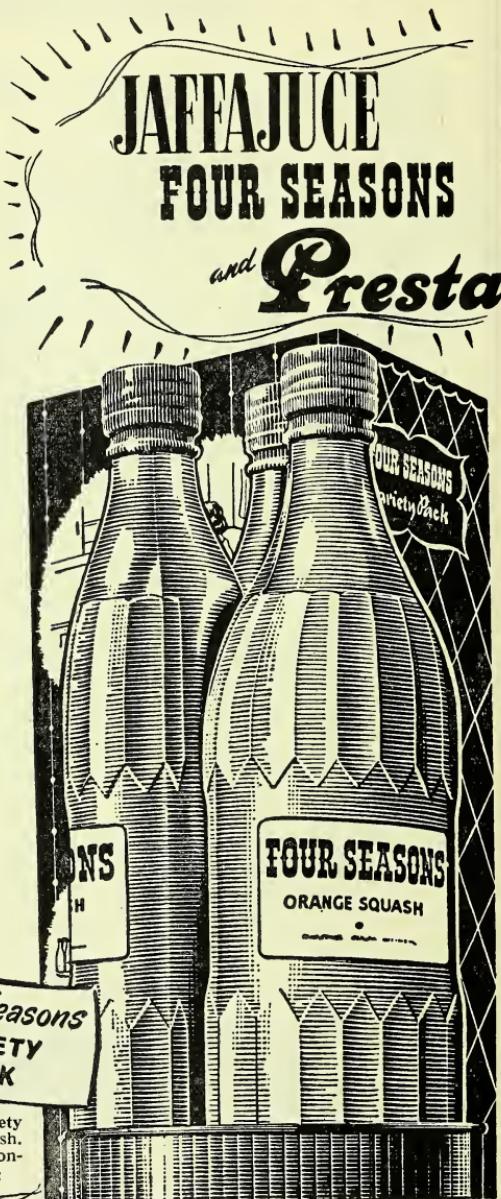
A new version  
of the family favourite!

Sparkling glass Cocktail Shaker, with combined cap and measure, and six matching glasses. Individual cartons in full colour. Packed in 1 doz. sets per outer. Available in Orange, Orange and Pineapple.

Retailing at 7/6 per set

**To delight the Party Hostess!**

Pleasing all tastes—three elegant bottles, three delicious flavours, fitted in a neat tray for handy carrying. Attractive full colour individual cartons. Packed 1 doz. per outer. Variety 'A' Orange Squash, Lemon Squash, Pineapple Crush. Variety 'B' Orange Squash, Pineapple Crush, Non-Alcoholic Ginger Wine. Retailing at 4/11 per set



# FOR XMAS!

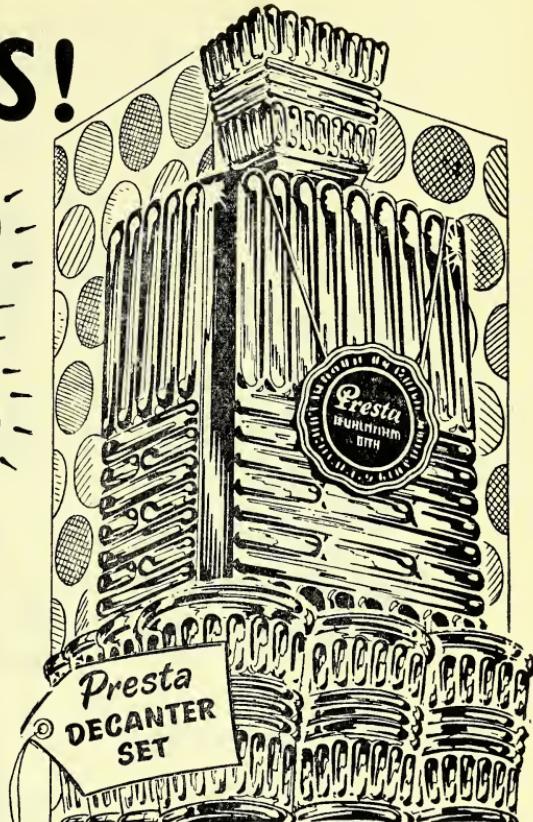
## NOVEL GIFT PACKS

to double & redouble  
your Christmas Sales

- ★ BIGGER-THAN-EVER TRADE MARGINS
- ★ OUTSTANDING VALUE
- ★ MULTI-COLOURED CARTONS  
(Specially designed for display)



**ORDER NOW!**



### **The Party Special ! The Gift Superb !**

A handsome Glass Decanter—and stopper—with six sparkling glasses. Individual full colour cartons. Packed 1 doz. sets per outer. Available in Orange, Lemon, Grapefruit, Pineapple and Lime.

**Retailing at 6/11 per set**

### **Excitingly different !**

#### **Remarkably low price !**

This attractive Carafe, to grace the family sideboard, will practically sell itself, and represents really excellent value. Complete with glass stopper. Packed 1 doz. per outer. Available in Orange, Lemon, Grapefruit, Pineapple and Lime.

**Retailing at 3/9**

SEND YOUR ORDER NOW to the Apollinaris Co. Ltd., 4 Stratford Place, London, W.1 and please state name(s) of your usual wholesaler(s)

A Name  
and a  
Standard

# “SURE SHIELD”

(Reg'd. Trade Mark)

BRAND

—  
IODISED THROAT  
LOZENGES

—  
GLYCERINE of THYMOL  
PASTILLES

—  
FRUIT LAXATIVES

—  
LOZENGES · PASTILLES  
TABLETS

In bulk and ATTRACTIVE PACKS

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**Thos. Guest & Co Ltd**

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A GRAND  
COUNTER ATTRACTION  
— and **FREE!**



This attractive Display Outer comes free with every dozen lot of Besorbon medicinal snuff. Give your usual wholesaler a trial order for this all-year-round preventive remedy for Hay Fever, Colds and Catarrh—backed by national advertising. Besorbon sells on sight! Put it on your counter.

**BESORBON**

Kemsales Ltd., 20 Eastcheap, London, E.C.

Recommend to  
your customers

**Ralgex**

ANALGESIC — RESOLVENT  
COUNTER-IRRITANT

**SOLID  
EMBROCATION**

for  
RHEUMATIC and MUSCULAR PAINS  
NEURALGIA and HEADACHES  
BRONCHITIS, CATARRH and LARYNGITIS

Handy, clean, practical and efficacious. Prescribed by doctors and regularly advertised in medical and nursing journals. Packed in artistic counter-display outers containing 1 doz.—a great aid to individual sales.

Write for trade terms, samples & literature.

**PHARMAX LIMITED**

*The Organ Works, Old Hill, Chislehurst, Kent*





OCTOBER

These are the months when the incidence  
of head colds and distressing complications  
assumes serious proportions, and the  
demand for 'Sulfex' soars. Ensure  
that your customers suffer no delay  
in getting their prescriptions dispensed  
by holding a representative stock.



NOVEMBER



DECEMBER

## 'Sulfex' — Check your stocks now

Issued for prescription only in 1-oz. bottles with dropper. Trade price 40/6 per dozen (exempt from Purchase Tax). 'Sulfex' is a Schedule IV preparation.

*Keep them skipping fit Mother!*



with  
**EDME**  
**"Autumn Sun"**  
EXTRACT OF MALT  
WITH COD LIVER OIL

*The finest protection for chills and ills*

**Have you seen**

**THIS**

new beautifully designed  
showcard size 23" x 17½" in  
full colours?

With the two side panels 17" x 10½" each also supplied, the whole makes an attractive window display that compels attention, and creates sales.

THE COMPLETE SET IS FREE. Ask our representative, or write to us for your FREE set.

EDME "AUTUMN SUN" is the Malt and Oil with the "taking flavour."

For prices and further particulars write to:—

**EDME LIMITED**  
84-86 REGENT ST., LONDON, W.I.  
Phone: Regent 5563-4



# GLYMIEL JELLY

## **BONUS PARCELS**

SMALL SIZE TUBES **8/6** PER DOZ.

LARGE SIZE TUBES **13/8** PER DOZ.

Plus Purchase Tax

★ ★ BONUS 13 TO THE DOZEN FOR WINDOW DISPLAY ★ ★

**4 BONUS PARCELS TO CHOOSE FROM**

(13 TO THE DOZEN IN ALL CASES)

**PARCEL "A"**

8 doz. 1s. 8d. size

**PARCEL "B"**

12 doz. 1s. 8d. size  
1 doz. 2s. 8d. size

**PARCEL "C"**

9 doz. 1s. 8d. size  
3 doz. 2s. 8d. size

**PARCEL "D"**

6 doz. 1s. 8d. size  
6 doz. 2s. 8d. size

Full details from **SANGERS LTD.** 258 EUSTON ROAD, LONDON, N.W.1

Branches at BRISTOL and NEWCASTLE

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MACOWAL  
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invite enquiries for the  
manufacture of Pharmaceutical  
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Tablets, Vials, Ampoules  
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# DOUBLE PROFIT- ON EVERY JAR OF CHILDREN'S



**Every sale brings you  
more than twice the profit  
of average priced vapour rubs**

Every time you sell a jar of Children's Musterole you *make more than twice the profit* you get from selling an average-priced vapour rub.

Work it out and prove it for yourself. Children's Musterole brings you a profit of 11/8d. a dozen. Now check that against an average-priced vapour rub and you'll see at once — *more than twice the profit when you sell Children's Musterole.*

Children's Musterole is extra mild — the ideal *all-purpose* rub for chest colds, sore throats and other purposes. Musterole advertisements are kept before nearly 16,000,000 people every month.

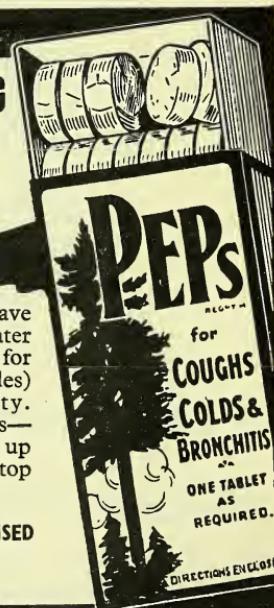
**Keep it on display all the time.**

**Distributors: Thos. Christy and Co., Ltd., North Lane, Aldershot, Hants.**

*Order Now*  
**STRONG ADVERTISING  
SUPPORTS THESE BIG  
PROFIT MAKERS**



Be sure you have ample stocks of these winter winners — PEPS, a household name for generations — and P.P.'s (Pleasant Pastilles) that are rapidly winning popularity. Order at once on Display Parcel Terms — use the attractive display outers to link up with the advertising — and be sure of top sales and biggest profit.



**KEEP UP YOUR SUPPLIES TOO OF THE POPULAR WELL-ADVERTISED  
BILE BEANS and Zam-Buk (Ointment and Cream)**

**PATA C.E.FULFORD LTD., CARLTON HILL, LEEDS. 2**

# Two Great Nations Combine

TO BRING TO YOU THE SOAP THAT GIVES  
AMAZING TOP-TO-TOE PROTECTION NIGHT & DAY

CIDAL, the high-grade, pleasantly perfumed toilet soap, contains Hexachlorophene, a recently developed germicide proved and tested in America, which leaves a thin protective film on the skin after washing, for perspiration and body-odours, remaining effective throughout day and night, and reduces the incidence of acne (blackheads), boils, athlete's foot, etc., keeping the user's skin fresh and healthy.

- \* Acclaimed by American women
- \* Recommended by Doctors
- \* Now available in Great Britain
- \* 1½d per Tablet only

It's the HEXACHLOROPHENONE that ensures a fresher  
more confident YOU... Ask your Doctor, he'll tell you!

THIS  
ADVERTISEMENT

LIVERPOOL

ANNOUNCES  
A NEW GERMICIDAL SOAP  
COSTS 1½d PER TABLET ONLY



Customers will be asking YOU for Cidal—the new toilet soap with a big difference which, by virtue of its unique and advantageous properties, creates new sales opportunities.

## WHAT IS HEXACHLOROPHENONE ?

Hexachlorophene (2.2' — dihydroxy — 3.5.6.3'.5'.6' — hexachlorodiphenylmethane) is a recently developed germicide tested extensively in America. Colourless, odourless, non-irritant and non-toxic, it has the valuable property of being retained on the skin. 125 times more efficient than carboxylic acid at 37 C. against *Staphylococcus aureus*, it possesses a high dilution coefficient.

## WHY IS CIDAL SOAP REALLY NEW?

Cidal Soap, because of the Hexachlorophene content, penetrates inside the deep folds and pores of the skin normally untouched by ordinary soap, attacking the resident bacteria which include such pathogenic types as *Staphylococcus aureus*. The thin film of Hexachlorophene which remains on the skin affords effective protection at all times.



MADE FOR BRITISH FAMILIES BY

**J. BIBBY & SONS LTD**

L I V E R P O O L • 3

# EVAN WILLIAMS

## Dandruff Remover Shampoo

NOT "just another liquid soapless shampoo" but a shampoo based on **PURE SOAP** specially and scientifically blended to combat dandruff and safeguard the scalp from scurf and other disorders.

Retail: 1/3 per bot. (incl. Pur. Tax)

Wholesale: 8/6 doz. (plus 1/2 P.T.)

For MEN, WOMEN and CHILDREN

Possesses definite tonic properties for the removal of dandruff, scurf and scalp irritation.

Gentle in action; no drastic "degreasening" properties to harm the hair and render it brittle or harsh to the touch.

Its refreshing perfume appeals to both sexes.

Extremely economical in use, a 1/3 bottle is sufficient for at least two good shampoos.

Write for particulars of our best terms

EVAN WILLIAMS CO. LTD., Aintree Rd., Perivale, Mddx.

Illustration shows attractive point-of-sale counter display supplied with all orders.



# GOING GREY?

Keep it DARK with SHADEINE

Perfectly Harmless

— Your SALES are assured if you stock SHADEINE!

Still the best hair tint. In all natural shades. Stocked by all wholesalers. Trade prices—1 oz. 16/9 per doz., 2 oz. 29/7 per doz. Purchase Tax 100%. Retail prices 3/3 and 5/9 per bottle respectively. Also the new GOLDEN SHADEINE for lightening mousey hair. 2 oz. 16/9 per doz., 4 oz. 29/7 per doz. Purchase Tax 100%. Retail Prices 3/3 and 5/9 per bottle respectively.



**THE SHADEINE CO.**  
49 Churchfield Rd. Acton, London, W.3

**ALTRA**  
High Potency  
COD LIVER OIL CAPSULES

- 1 Vitamin A with additional Vitamin D
- 2 Vitamin E additional to Vitamins A & D
- 3 Vitamins, E & K, additional to Vitamins A & D

Guaranteed by 50 years' experience in the production of COD LIVER OIL

**ALTRA LTD., 77, South Audley Street,  
LONDON, W.I. Telephone: GROSVENOR 6992**

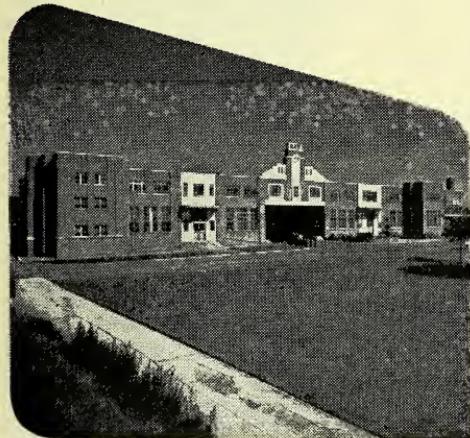
**Surgical & Veterinary  
Instruments & Sundries,  
Scissors, Tattooing  
Forceps, Castrators,  
Syringes, Needles, etc.**

**ALFRED COX (Surgical) LTD.**

(Established 1860)  
EDWARD ROAD, COULDON, SURREY

# chemists only...

NOW IN OUR 144th YEAR OF TRADING, IT IS OUR POLICY AT MAW OF BARNET TO MARKET PRODUCTS ONLY THROUGH CHEMISTS.



At our London Showroom, 67, Jermyn Street, (near St. James's St.) we have on display a wide variety of Merchandise and Shop Fittings for your inspection and our staff will welcome the opportunity of showing you round between the hours of 9 a.m. and 5.30 p.m. any weekday or by arrangement on Saturday mornings.

From 9 a.m. to 4.30 p.m. at the same address our Surgical Fitting Rooms are open for the convenience of your customers both male and female. To avoid any unnecessary waiting, it is always advisable to arrange for an appointment. Phone: Whitehall 5255.

Our advertising is being increased and we now have advertisements appearing at frequent and regular intervals in the National Press and Women's Magazines for:—

VELFIN SANITARY TOWELS.  
MAW'S TEATS  
AND  
MAW'S FEEDING BOTTLES.

Every advertisement carries the message  
“*Chemists Only*”

At Barnet we have our Head Office, Factory, Warehouse and Laboratory where we will always make you welcome should you wish to pay us a visit.



# ...chemists only

**S. MAW SON & SONS LTD.**  
**ALDERSGATE HOUSE, CROMER ROAD, NEW BARNET, HERTS.**  
PHONE: BARNET 5555

Consistent advertising and sampling over the past six months will create a demand for the special Christmas packs of

# Perfume by DEMUTH

Have you been asked for

WHITE LIES



MEMENTO



CONTRABAND



SAGA



or

you will —

see that you have stocks of these Christmas packs in time for the coming gift rush.

Houchoir-size at 7/6d. inc. tax in charming be-ribboned boxes, each in individual gift cartons.

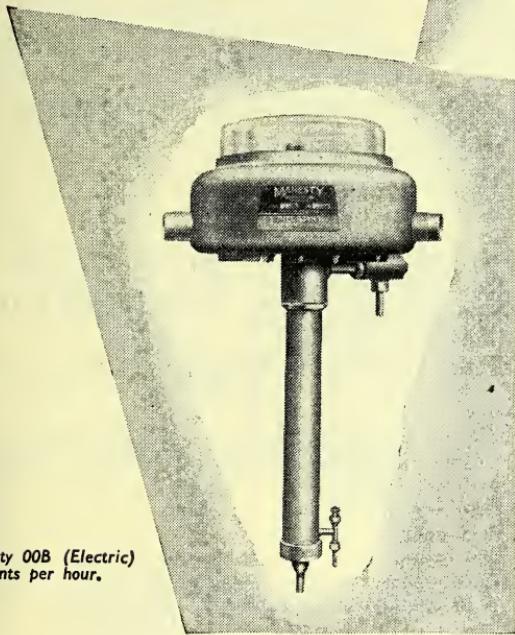
Handbag size at 3/6d. inc. tax tied with festive

cord with gift tally attached. Also

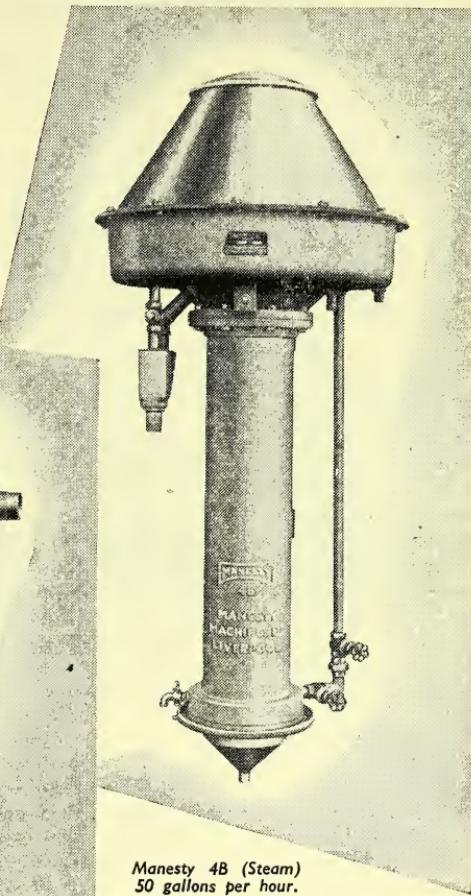
Froozclone and Frozolavender in individual gift cartons at 4/3d. inc. tax.

Show material now available.

# ONLY A STILL WILL GIVE YOU DISTILLED WATER



Manesty 00B (Electric)  
6-8 pints per hour.



Manesty 4B (Steam)  
50 gallons per hour.

**MANESTY STILLS**  
are available with  
outputs from 2 pints—  
50 gallons per hour.

Electric, Gas, Steam and  
Paraffin Heating.

If you want genuine distilled water, there's only one way to get it—by using a still. Whatever your process, a reliable and economical source of highest quality distilled water is always at hand when you install a MANESTY Automatic Water Still. Users of distilled water the world over acknowledge the special virtues of MANESTY Stills, for they give maximum efficiency at minimum cost.

*British made by Manesty Machines Ltd., A member of the Holroyd Engineering Organisation.*

For details of Manesty Stills, Technical and Experimental Service, write to:

**MANESTY MACHINES LTD.**

DEPT. 5 - SPEKE

LIVERPOOL, 19

Telephone : Hunts Cross 1972 Telegrams : Manesty, Liverpool

TABLET MACHINES . COATING PANS . GRANULATORS . MIXERS . PUNCHES AND DIES



# 11,000,000 WOMEN WILL SEE THIS ADVERTISING BEFORE CHRISTMAS



Regular advertising in all the women's weekly and monthly publications is building up a big demand for these Adelaide Grey Proprietaries. Order a stock today.

## WAX-A-WAY & COOLWAX DEPILATORIES

'Laleek' Wax-a-Way recommended for facial treatment is definitely the most satisfactory Wax Depilatory marketed today. It retails at 8/7 including Tax. 'Laleek' Coolwax is for use on the arms and legs. Economical to use and most effective. Retails at 5/9 including Tax.

## LONGLASH & EYE COSMETIC

Adelaide Grey's 'Laleek' LONGLASH, famous for years as the leading line in the field, retails at 2/1. 'Laleek' Eye Cosmetic attractively packed in its new round container complete with brush, retail 4/6, is rapidly growing in popularity.

## BEAUTY PREPARATIONS

ADELAIDE GREY, 30 OLD BOND ST., LONDON, W.I



Sells fast  
sells  
profitably

**BESCO** shampoo  
EYE SHIELD  
Simple. Safe. Cheap

Nationally  
Advertised

Trade buy at  
24/- per doz.,  
plus 33 1/3% P.T.

Much-needed, simple, safe and cheap . . . the BESCO is all these things. Well backed by national advertising this eye shield is a real winner. Sample sent on request.

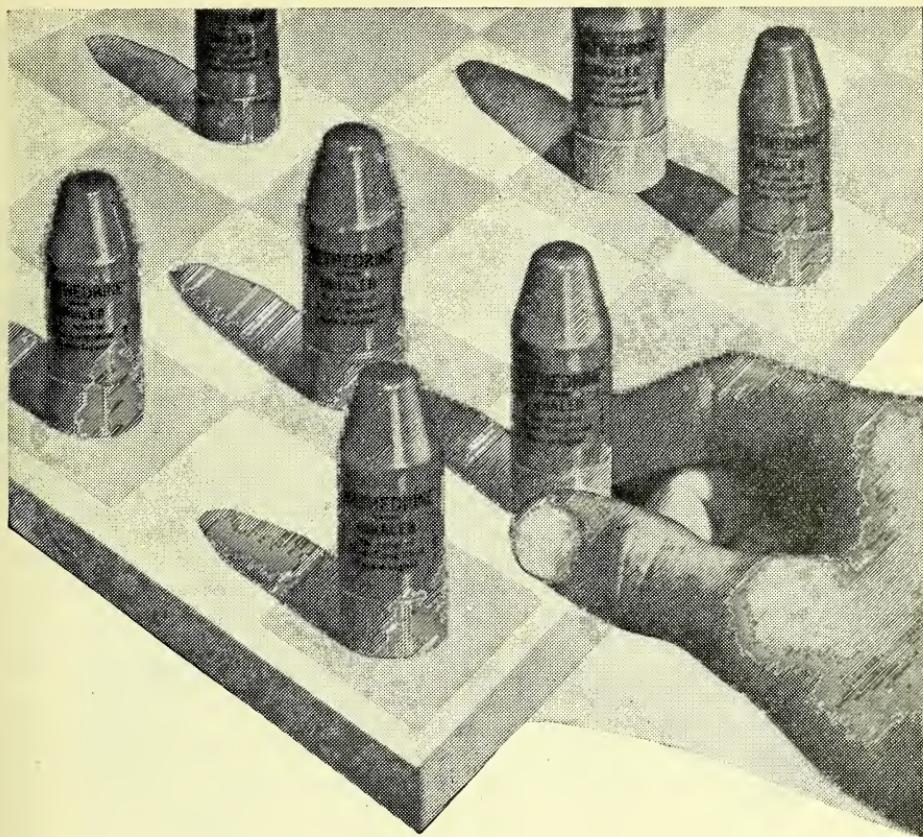
**3/9**  
RETAIL PRICE

**BESCO CO., Hill Street, Rochdale**



**BIOREX**  
LABORATORIES LTD.  
WHOLESALE AND MANUFACTURING CHEMISTS,  
51 EXMOUGH STREET, LONDON, E.C.1  
Telephone TERminus 9494 and 1431

*Post orders executed promptly  
Daily delivery service in the  
Greater London Area*



***A prudent move  
for profitable trade***

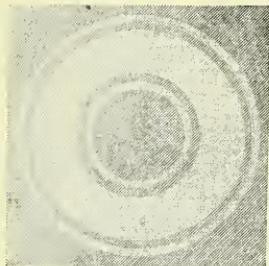
Review your stocks of the 'Methedrine' Inhaler. Order now to meet the seasonal demand. By so doing you will make a prudent move in winning profitable trade. Available in three gay colours, the 'Methedrine' Inhaler will be sent you smartly cartoned in display-outers holding 24. Also at your service to stimulate sales are a striking display-stand and a showcard. **BONUS TERMS:** one 'Methedrine' Inhaler free with every 24 you order. **RETAIL PRICE:** 2/- plus 6d. purchase tax.

***The 'METHEDRINE' INHALER***

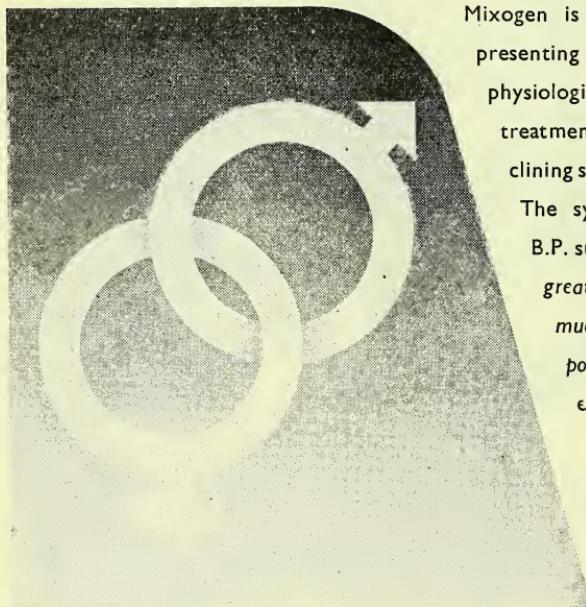
BRAND



**BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON**



## NEW ADVANCE in sex hormone therapy



Mixogen is the new Organon preparation presenting the male and female hormones physiologically balanced in one tablet for the treatment of all signs and symptoms of declining sex hormone function in either sex.

The synergistic combination of these B.P. substances confers beneficial results greatly exceeding any obtainable with much larger doses of either of the components alone, without the unwanted effects often associated with one-sided sex hormone therapy. The remarkable sense of renewed mental and physical vitality is a notable feature of the treatment.

The tablets are FREELY PRESCRIBABLE UNDER THE N.H.S.

"MIXOGEN" contains 0.0014 mg. ethynodiol B.P. and 3.6 mg. methyltestosterone B.P. in each tablet.



# MIXOGEN

*Male and Female Hormones in 1 tablet*

*In Perspex tubes of 25 tablets and in bottles of 100, 250 and 500.  
Price List on request.*

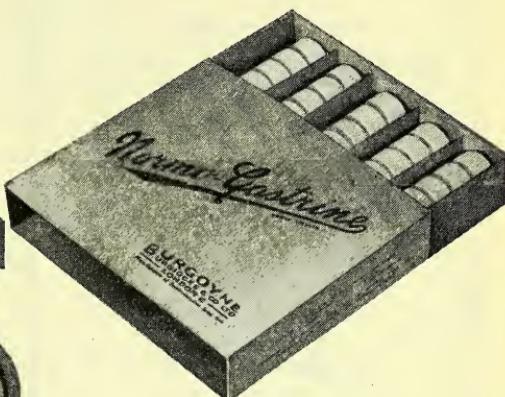
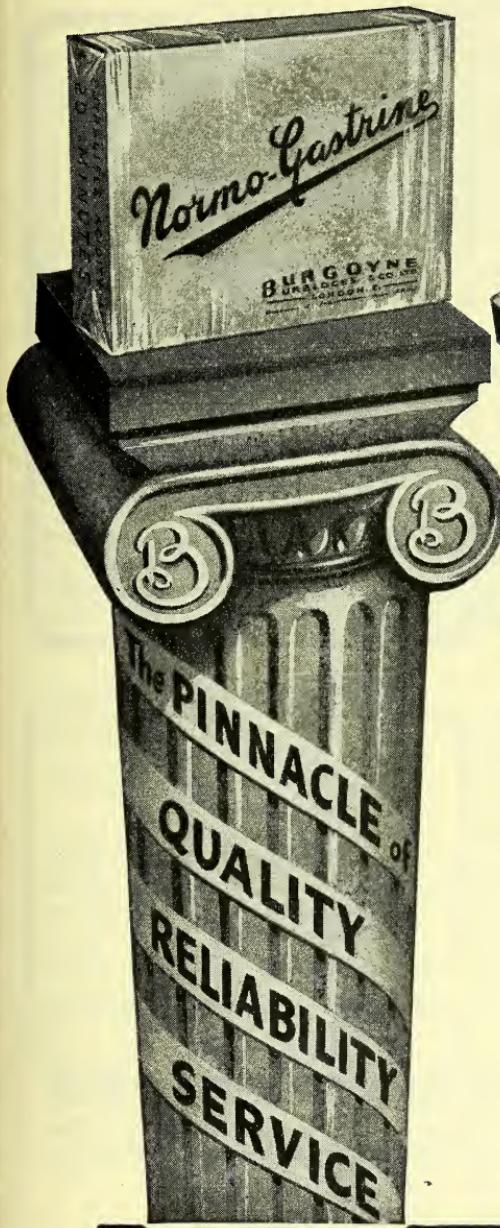
**ORGANON LABORATORIES LTD**

BRETTONHAM HOUSE, LONDON, W.C.2

TEMple Bar 6785-6-7

TEMple Bar 0251-2

*The best of its kind,  
always 'above' the average*



## Normo-Gastrine

... neutralises acidity  
in 20 minutes

An elegant and palatable Aluminium Silicate preparation.

Packed in boxes of  
50 tablets, retailing 2/3  
Tax included

14/6 per doz. plus  $\frac{1}{3}$  tax

**BURGOYNE BURBIDGES**

Established 1741. & COMPANY LIMITED, LONDON. E.6

**TUNGLOSE**  
BRAND  
PURE MEDICINAL  
POWDERED GLUCOSE  
(Dextrose Monohydrate)

*Ask your Wholesaler*



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REFINERIES LTD.**

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Telephone : Chancery 6524 (6 lines)

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Agar Agar  
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Cantharides  
Cascara Sagrada  
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Ergot of Rye  
Grindelia Herb  
Liquorice  
Lobelia Herb  
Papain  
Peppermint Oil  
Sabadilla Seed  
Sarsaparilla  
Wild Cherry Bark  
Witch Hazel Leaves  
and all other Botanicals,  
Gums, Waxes, Essential Oils  
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**QUATERNARY AMMONIUM COMPOUNDS**

Now available commercially

**LEDA CHEMICALS LTD.**, are pleased to announce that they are now manufacturing the following quaternary ammonium compounds in commercial quantities:—

Lauryl Pyridinium Chloride • Lauryl Pyridinium Chloride (broad cut) • Cetyl Pyridinium Chloride

Lauryl Dimethyl Benzyl Ammonium Chloride

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Cetyl Dimethyl Benzyl Ammonium Chloride

Stearyl Dimethyl Benzyl Ammonium Chloride

ALSO AVAILABLE: HIGHER ALKYL CHLORIDES, broad and narrow cuts from C<sub>8</sub>-C<sub>18</sub>. Data sheets and full information gladly supplied on request.

**LEDA CHEMICALS LTD.**, Wharf Rd., Ponders End, Middlesex  
Tel. No.: HOWard 2231 Tele. Address: Ledakem, London

**RECOMMEND**

**S.D.2**

with confidence

PENETRATES and REBUILDS DAMAGED TISSUE in SKIN ILLNESSES  
Remarkable for the Treatment of Burns,  
Spots, Rashes, etc.

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BC35

**BURNSIDE'S EUCALYPTUS OILS**

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80/85% B.P.

Oil Euc. Dives 40/45%

Oil Euc. Citriodora

70/75% B.P.

Piperitone 90/95%

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EDINBURGH & LONDON

*May we quote you for—*  
**GLAUBER SALTS** B.P.  
Pea Crystal and Feathery

**EPSOM SALTS** B.P.  
Needle Crystals, Medium, Exsiccated

All grades conform to the 1948 B.P. Standard

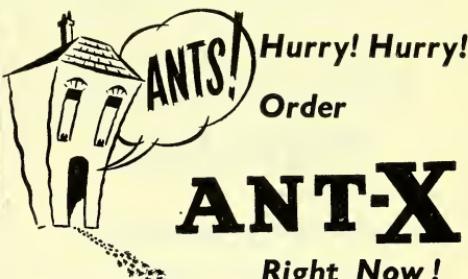
Special Crystals matched and any degree of exsiccation  
to order. Packed for Home and Export.

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GREGGE STREET WORKS  
HEYWOOD, LANCS.

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Harp, Heywood, Lancs.

Telephone:  
Heywood 6570



**ANT-X**  
Right Now!

**ANT-X IS THE NEWEST, QUICKEST,  
SIMPLEST, SAFEST ANT-IDOTE**

Ant-X is an odourless syrup, attractive but deadly poisonous to ants (only to ants—it is harmless to pets). Spread some near the ants' haunts and they will feed on it and carry it back to the nest, where it exterminates the complete colony within 24 hours. Ant-X is being nationally advertised and is in universal demand throughout the summer.

**NATIONAL ADVERTISING  
WILL BRING BIG DEMAND**

**TERMS**

Retail price 2/- bottle  
Retailers 33½% profit

Order now from your wholesaler or direct from:  
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**PRECIPITATED CALCIUM  
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**POTASSIUM BICARBONATE**



**JOHN & E. STURGE LTD.**

**I WHEELEY'S ROAD · BIRMINGHAM 15**

# Never run out of Curicones!

There's always a steady demand for the remedy which thousands of Rheumatic sufferers have found the most reliable of all.

Once again its sales this season are showing a healthy growth. Many chemists have found a small counter display pay big dividends.

Why not try the effect of one yourself? Make sure you are carrying ample stocks of both the 5/6 and 26/5 size.

We still have small supplies left of our novel "weather indicator" showcard. It is most effective and surprisingly accurate. Send us your name and address for one and see the interest it attracts.

## CURICONES



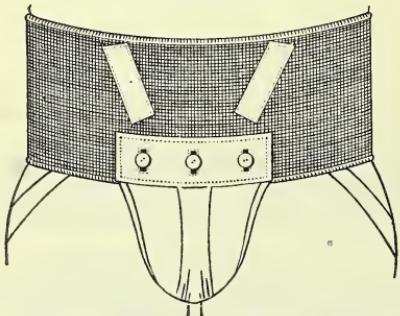
AND

P.A.T.A.

STEPHEN MATTHEWS & CO. LTD.  
19/21 Farringdon Street, London, E.C.4

## Something New

### SILNET GENTS SUPPORTER FOR HEALTH AND COMFORT



Knitted Art Silk Elastic Belt (any depth). Slip-on or Buckle Fastening with detachable or fixed purse. Each in attractive carton.

Manufactured by:—

CHARLES WILLIAMS & CO.  
(Prop. A. G. Price)  
STONEY ST., BEESTON, NOTTS

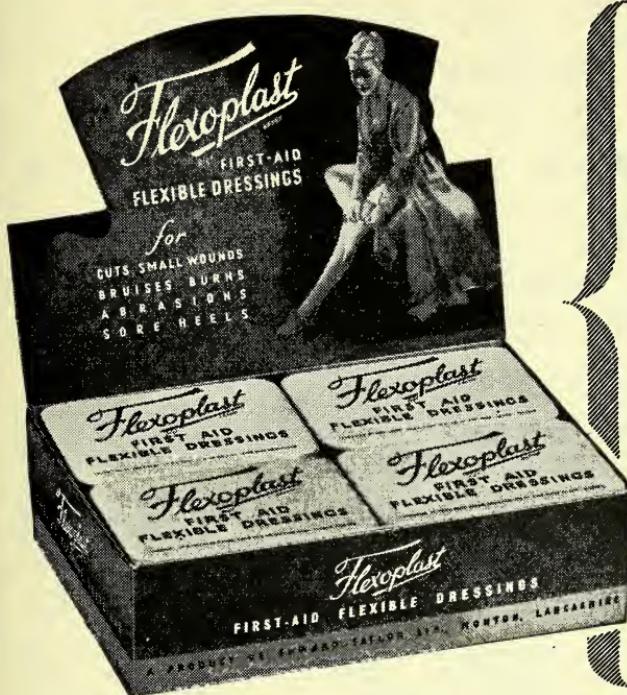


**SAN TOWELS**  
MADE WITH THE FINEST MATERIALS  
SOFT KNITTED COVERING WITH LOOPS

Highly absorbent  
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display  
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for  
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business

IN POCKET SIZE TINS, MEDIUM & LARGE

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**FIRST-AID DRESSINGS**

OBtainable from your  
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Manufactured by  
EDWARD TAYLOR LTD., MONTON, LANCS.  
Established over 100 years



Flexoplast Dressing is  
also available in the  
new hygienic cartons.  
Size  $1\frac{1}{2}''$  x 1 yard and  
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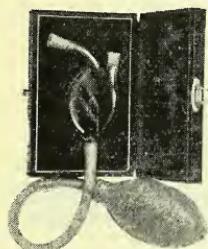
N.H.S.

The following RIDDELL Asthma Inhalers  
can be supplied on E C 10 forms:—

• ASTHMATOR	14/6	Retail	8/9	Cost
• DRITAX	18/-	„	11/1	„
• RIDDOFAN (In Leatherette Case)	19/3	„	12/3	„
• POCKET RIDDOPAG	20/6	„	12/4	„
• RIDDOPAG (INC. MASK)	25/-	„	15/-	„

AND THE POPULAR—

**RIDDOBRON** ASTHMA INHALANT 12.5 gm.; 25 gm.; and 100 gm.



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• LONDON • W.I. •

P.A.T.A.

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AN ALL COTTON WOOL PRODUCT OF REPUTE

**ConSoluce** Patent No. 410702  
(Registered)

SUPERFINE QUALITY  
ALL WOOL SANITARY TOWELS

LOOPEd ENDS  
NON-ABSORBENT BACK  
WHOLESALE ONLY

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SURGICAL DRESSINGS MANUFACTURERS  
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**'SURCO'**  
RELIABLE  
ELASTIC HOSIERY  
(SEAMED and SEAMLESS)  
SURGICAL BELTS  
TRUSSES & SUNDRIES

are backed by sound  
experience of over

**50 YEARS**

...if it's SURGICAL SUNDRIES...  
it's a safe rule to send your  
enquiries first to:—

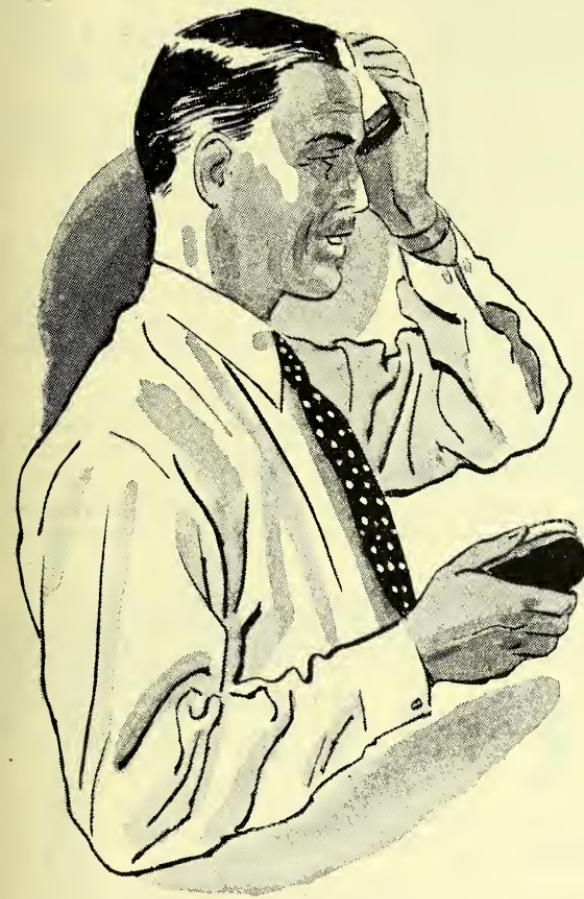
**SURGICAL HOSIERY CO LTD**

Russell St. NOTTINGHAM

Phone: 75903

Grams: SURGICAL  
NOTTINGHAM

# He must have the best . . .



. . . and *he* knows

that the best is NYLON.

NYLON hairbrushes,

hygienic and easy to clean,

retain their resilience

and lively 'feel' throughout  
their long life.

NYLON brushes look well,  
sell well and give lasting  
satisfaction.

*there is no better brush*

than a



brush



IMPERIAL CHEMICAL INDUSTRIES LTD.  
LONDON, S.W.1



## THE SHAMPOO WITH SCALP PENETRATING ACTION

### A NUCTA SPECIALITY PRODUCT

This attractive display stand carries the 8oz. Bottle which sells at 4/3½.

28/- per doz. plus tax

Also Full range of Toilet Specialties . . Violet Oil, Hand Lotion, After Shaving Lotion

Obtainable from your usual wholesaler or direct from the manufacturers :-

STEWART, GOODALL & DUNLOP LTD. 121a PRINCES STREET, EDINBURGH

# CHLOROPHYLL

WATER SOLUBLE FOR MEDICINAL USE IN PASTE  
OR POWDER FORM—Non-toxic

for the manufacture of Anti-deodorant Tablets, Ointments  
for the treatment of Wounds, Ulcers, Burns, etc., and  
for Dental purposes.

We guarantee the correct strengths of Chlorophyllin in the following:—  
8% Paste - - - - 12% Paste - - - - 16% Powder

Oil and Spirit soluble any colour strength please apply for samples  
and further information

BULK SUPPLIES ONLY for manufacturers

Produced by

BRITISH CHLOROPHYLL CO., LTD., NAVENBY, LINCS.

Sole Distributor:- **FREDK. BOEHM, LTD.** 19 BENTINCK STREET, LONDON, W.1  
Phone : WELBECK 7933

Grams: BISSULA, WESDO, LONDON

# C.V.B.

CARR'S VITAMIN B,  
PREPARED WHEAT EMBRYO

A RICH NATURAL SOURCE OF  
VITAMINS B and E

TWO SIZES

1/9 or 3/-

Trade 16/- doz. or 27/- doz.  
FREE NON-RETURNABLE CARTONS

From Principal Wholesalers  
or from the Manufacturers

CARR'S CEREAL PRODUCTS LTD  
CARLISLE

Speaking of  
**NORTHERN  
IRELAND**

WILL REMIND YOU OF

**Belfast Telegraph**

The Newspaper with the largest circulation in Northern Ireland. Read in the homes of the people throughout the whole of this important industrial and agricultural part of the

UNITED KINGDOM

HEAD OFFICE:  
ROYAL AVENUE,  
BELFAST.

LONDON OFFICE:  
101 QUEEN STREET,  
LONDON, S.E.1

# FOUR SHERLEY WINNERS!



**SHERLEY'S  
LACTOL**

Retail prices 3/6  
Kennel size 37/6.

The 25th Edition of SHERLEY'S DOG BOOK is now ready. As valuable to the ordinary dog owner as it is to the professional breeder.

Please send orders and enquiries to:—

**A. F. SHERLEY**

& CO., LTD.

16/18 Marshalsea Road,  
London, S.E.1.

**SHERLEY'S YEAST  
TABLETS**

Retail price 1/9 per 50;  
5/- per 300 tablets.

**SHERLEY'S  
TAPEWORM TABLETS**

Retail price 1/9 per pack.  
(12 tablets).

**SHERLEY'S  
ROUNDWORM CAPSULES**

Retail price 1/- & 2/- per packet.

## YOUR WINDOW DISPLAY



brings Bigger Bonus,  
plus Better Business !

Extra 7½% discount on all orders of a gross or more, provided a window display is given. This offer is open now to all stockists who wish to profit by 'tying up' with the NUTRIGEN National advertising. Attractive sales-creating display material gladly sent upon request.

NUTRIGEN  
is supplied  
in packets of  
12 tablets for  
1/- or jars of  
50, 100, 250  
or 500.



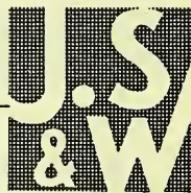
Keeps Cut Flowers Garden Fresh

All enquiries to:

**SIMMONDS-LOW HORTICULTURAL PRODUCTS LTD**  
78/80 Church Road, Acton, W.3

1842 • 1951

One hundred  
and nine years  
of service



The Packaging  
Specialists

**JOHNS, SON & WATTS LTD**  
2-4 EPWORTH ST. LONDON, E.C.2

Phone: MONarch 7408  
(THREE LINES)

Have you got your copy of

**THE CHEMIST'S DICTIONARY  
OF SYNONYMS ?**

This book incorporates Rouse's Synonyms and contains thousands of synonymous terms.

It is a most useful book of reference.

5/- postage 4d. from

**THE CHEMIST & DRUGGIST**  
28 ESSEX ST., STRAND, LONDON, W.C.2

**ATTENTION!**

*We can supply*  
**DRIED YEAST B.P.C.**

**THE DISTILLERS CO. LTD.,**  
12 Torphichen Street,  
Edinburgh, 3

FOLDING  
CARTONS,  
LITHO and  
L'PRESS

RIGID  
BOXES,  
PLAIN and  
FANCY

PACKS  
FOR  
SPECIAL  
PURPOSES

DESIGNERS  
AND  
PRINTERS

**Ladies' Overalls**

COAT STYLE. Made in strong and hard-wearing Drill, with long sleeves, button front and belted. Available in Green, Beige, Grey, Pink, Sky, and Rust Red.

S.W.	W. & W.X.	O.S.
27/-	29/2	32/3

WRAP-OVER STYLE. Obtainable in strong White Drill.

S.W.	W. & W.X.	O.S.
22/11	25/2	28/8

All the above are Utility and fully shrunk.  
(Prices subject to fluctuation)

Postage and Packing 1/- extra. Please state size and second colour choice when ordering.

**GARDINER'S**

1, 3 & 5 COMMERCIAL RD., LONDON, E.1

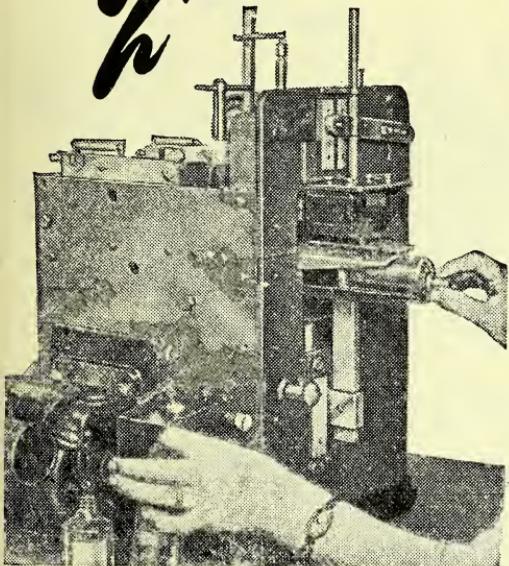
(Opposite Aldgate East Station)

Telephone: B1Shopsgate 6751/3

Gardiner & Co. (The Scotch House) Ltd.

IN ADDITION TO THE WORLD RENOWNED 6-POINT LABELLER  
THERE ARE

*2 NEW* types of **NEWMAN**  
LABELLERS



**Nº 1** (Model C)

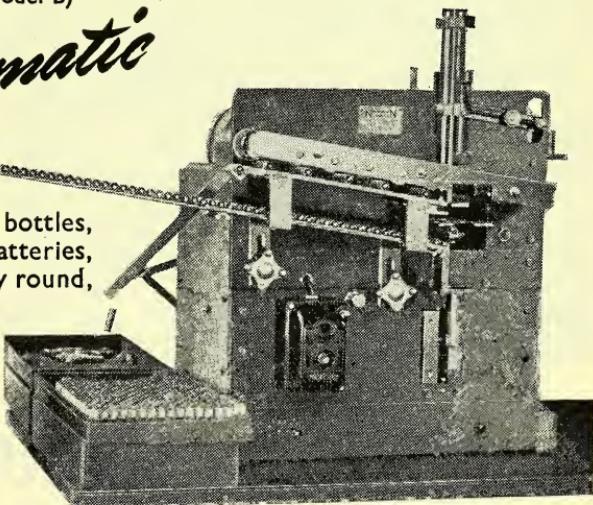
*Gums labels  
completely*

Powder Boxes, Cartons and  
other flat surfaces.

**Nº 2** (Model B)

*Fully Automatic*

Labels cylindrical objects, bottles,  
tubes, crayons, ampules, batteries,  
etc.  $\frac{3}{8}$ "- $1\frac{1}{8}$ " diam. completely round,  
or with a gap or overlap.



**D. TRAPOW & CO. LTD.**  
ENGINEERS

(Dept. I) 113 Regent's Park Rd., Chalk Farm, London, N.W.1 Phone : PRI 6688

# FAST . . .

## FOOLPROOF FILLING

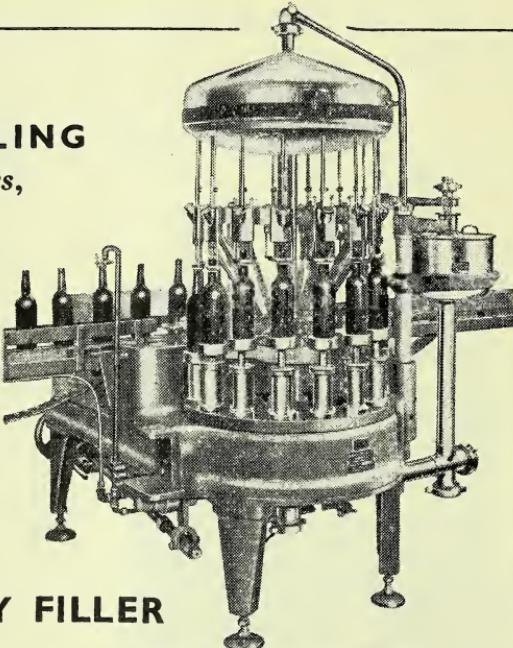
for Medicines, Antiseptics,  
Lotions, etc.

- ★ Fully Automatic
- ★ Foolproof valveless vacuum-operation
- ★ 15 Heads—Output up to 100 bottles per minute
- ★ Full details on request

# ALBRO

VACUUM - OPERATED  
15 - HEAD ROTARY FILLER

ALBRO FILLERS & ENGINEERING CO. LTD., Wharf Road, Ponders End, ENFIELD, Middx.



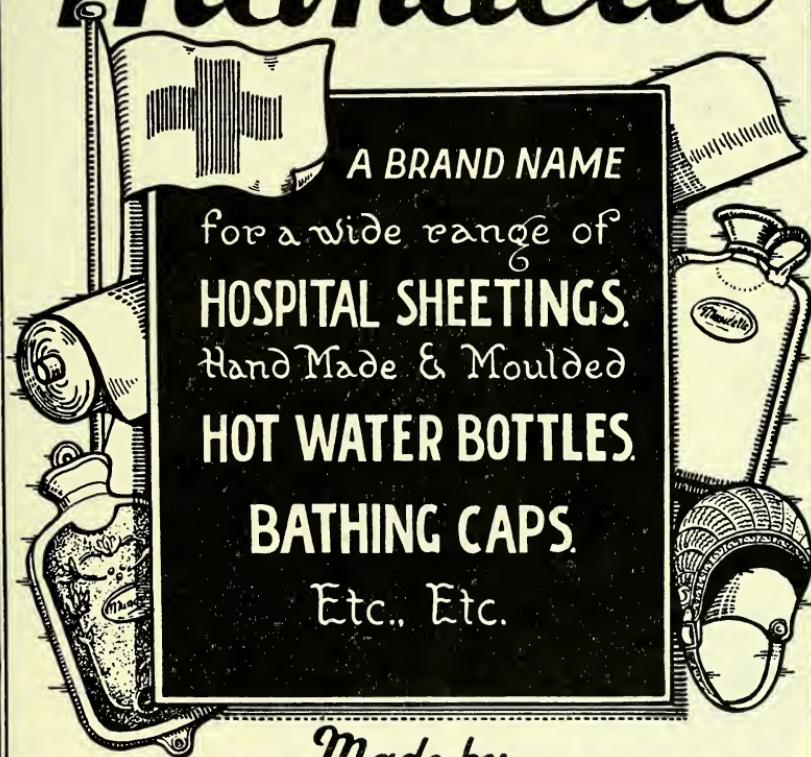
**does your shop  
attract custom?**

It can do. It should do. It *will* do if you build up attractive selling displays with the aid of 'Shomore' equipment. Start with a single Shomore unit and add others as your profits grow. A free booklet "LOOK BEYOND YOUR WINDOWS" explains the Shomore way to extra profits. Write for your copy TODAY.

# *Sellmore by 'shomore'*

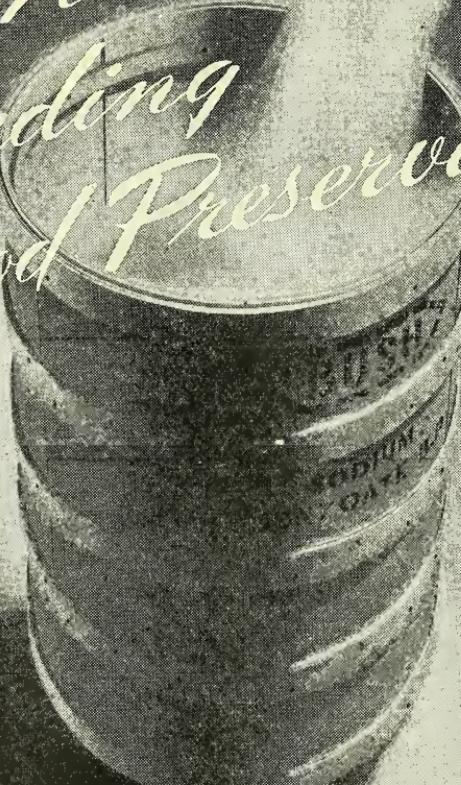
PARNALL & SONS LTD • LODGE CAUSEWAY • FISHPONDS • BRISTOL

# Mandelle



Made by  
**J. MANDLEBERG & Co. LTD.**  
PENDLETON, SALFORD, 6, LANCS.

*The  
World's  
leading  
Food Preservative*



**D**  
**DUSH** *Sodium  
Benzoate*

W. J. BUSH & CO. LTD. . LONDON . E.8 . ENGLAND

A selection  
from the range of



## ETHICAL PRODUCTS

all supported by intensive  
medical propaganda and  
in steady demand

### **'ABECEDIN'**

Vitamins A.B.C.D. (Tablets and Emulsion)

### **'CAAPI'**

Anti-Coryza Tablets

### **'DYSPISTOL'**

for Dysmenorrhœa

### **'MINACEDIN'**

Vitamins A.B.C.D. with Minerals

### **'RAMINAL'**

for Hyperpiesis

### **'SEDONAN'**

for Otitis Media

### **'SOROSIL'**

Dermal Ointment

**H. R. NAPP Limited, 3 & 4, Clements Inn, London, W.C.1**

# IMPORTANT ANNOUNCEMENT

WILLIAM FREEMAN & COMPANY LIMITED of Subseal Works, Peel Street, Barnsley, Yorkshire announce that they have commenced an Action in the Chancery Division of the High Court of Justice against W. W. HAFFENDEN LIMITED of Richborough Rubber Works, Sandwich, Kent alleging that the "Slumberland" Safety Neck No. 3 Hot Water Bottles, manufactured and sold by W. W. Haffenden Limited, infringe Letters Patent No. 470,720 of which William Freeman & Company Limited are the registered proprietors and claiming an injunction, damage and other relief.

**BRITAIN'S  
GENUINE**



**SAFETY HOT  
WATER BOTTLE**



*We proudly present another outstanding model  
additional to our present range*

### **The "STREAMLINE"**

- ★ **RIBBED** for longer heat retention
- ★ **RIBBED** to avoid use of loose cover
- ★ **RIBBED** to give a cushion  
of hot air providing comfort  
and warmth without danger  
of burning

#### *The two popular priced models for which sales are still soaring :—*

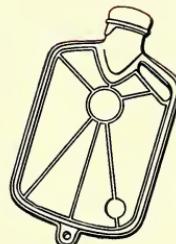
The hot water bottles which simply will not leak — the old disadvantages of screw stoppers are overcome with the **SUBA-SEAL PATENTED** safety suction closure. Both with and without handles, Standard bottles are available in an attractive range of new pastel shades.

**THE SUBA-SEAL GIANT.** A Large size bottle specially designed for the sick bed, carries a handle and is supplied in an attractive range of colours.

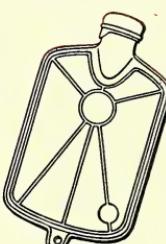
**THE SUBA-COT.** Miniature nursery bottle is absolutely safe for pram or cot. In Pastel Blue and Pastel Pink.

There are other models including children's shapes in the **SUBA-SEAL** range of Hot Water Bottles and a large variety of pharmaceutical rubber products included in the National Health Scheme.

STANDARD  
WITH HANDLE



STANDARD  
WITHOUT HANDLE



**Assure yourself of adequate  
supplies by ordering NOW.  
Delay may mean disappointment.**

Made only by **WILLIAM FREEMAN**  
— & COMPANY LIMITED —

**SUBASEAL WORKS · PEEL STREET · BARNSLEY · YORKS**

Telephone Barnsley 4081

Telegrams: "SUBASEAL BARNSLEY"

# a case for concern . . .

. . . needing your  
kindly  
assistance.

Because you are  
continually needing fresh  
supplies for your customers,  
there is a continual need  
for containers. And the  
present lack of raw materials  
to make new containers makes  
this a case of emergency  
concerning us all.

So we must look to you to  
keep all containers for re-use.

The C.R.S van calls regularly to pick them up.



## **CONTAINER** *recovery service*



S.P.D. LIMITED, 3-5, SALISBURY SQUARE, LONDON, E.C.4

# WHIFFEN'S

## *Fine Chemicals*

**XANTHINE  
ALKALOIDS  
and preparations**

**CAFFEINE  
THEOBROMINE  
THEOPHYLLINE**



**WHIFFEN & SONS LTD., FULHAM, LONDON, S.W.6**

Phone :  
RENown 3416

Telegrams :  
Whiffen, Walgreen, London

Our new Hillcrest advertising scheme begins in the next few weeks in the women's magazines . . .

The striking illustrations of the new Series will bring **MORE SALES**.

## The TOILET ROLL that **SELLS** on sight

HILLCREST Medicated Toilet Rolls are manufactured from Pure White Sulphite tissue, banded with highly glazed HILLCREST bands.

**PRICE:** 114/6 per gross, carriage paid.

(*Sample on request*)

TRADE ENQUIRIES INVITED

Sole Manufacturers:

**LIPTON'S PAPER MILLS LIMITED**  
Devonshire Works, Duke's Avenue, Chiswick  
LONDON, W.4



Established 1898

AUSTRALIAN  
EUCALYPTUS OIL  
(B.P. 80/85%)  
MENTHOL CRYSTALS  
(Chinese and Brazilian)  
PEPPERMINT OIL  
(M. Arvensis and M. Piperita)  
AGAR AGAR  
REFINED CAMPHOR  
(Powder, Slabs and Tablets)  
CITRIC ACID B.P.  
TARTARIC ACID B.P.  
ESSENTIAL OILS  
DRUGS, GUMS AND  
WAXES

**Wm. Chas. BRUMLEU**  
(E. G. DENSLEY)  
IMPORT — EXPORT

Established 1854

4-5 HOGARTH COURT, FENCHURCH ST.  
E.C.3 Tel.: MAnson House 3150-2930



**UP GO THE SALES !**

— as National advertising persuades more and more women that BU-TO, the rose-scented depilatory, is the only one for them! Tell YOUR customers about Bu-to's pleasant perfume. That's what makes them buy—and buy again!

Retail price 2/6 per tube inc. tax. Trade: 12/- per dozen plus tax. Packed in attractive 1 dozen display outers.

**BIOMETICA LIMITED**  
BULLHEAD ROAD, BOREHAM WOOD, HERTS.

# The strut behind every 'ASPRO' display

WHEN displays are backed with continuous national advertising—that's when they sell! Here's the support your 'ASPRO' display is getting this winter:

'ASPRO' films and filmlets showing in nearly 75% of Britain's cinemas.

'ASPRO' advertisements appearing continuously in National and Provincial Press.

'ASPRO' posters appearing on hoardings, news-boards and transport vehicles.

THE PUBLIC will be getting the 'ASPRO' message everywhere.



# 'ASPRO' DISPLAYS ARE SELLING DISPLAYS

Made in England by  
ASPRO LIMITED, Slough, Bucks

P.A.T.A.

**ASPRO**  
REG. TRADE MARK

**AYRTON  
SAUNDERS  
& CO. LTD.  
LIVERPOOL**

—  
The  
Complete  
Pharmacy  
Service  
—

DRUGS  
GALENICALS  
PENICILLIN  
ETHICALS  
PROPRIETARIES  
PACKED GOODS  
SUNDRIES  
PATENTS  
FANCIES  
TOILETS  
CORKS      BOTTLES

34 Hanover Street  
LIVERPOOL

**M&W**

*for  
Better Value*

**PILLS  
TABLETS  
CAPSULES  
LOZENGES  
SUPPOSITORIES**

*Quotations on request*

**MATTHEWS & WILSON LTD.**  
ESTD. 1894  
6-8 COLE ST., LONDON, S.E.1.  
TELEGRAMS: PILLEOLUM, SEDIST, LONDON • PHONE: HOP. 2147-8

**Or-Lem**  
TRADE MARK

**THE  
FINEST FRUIT SQUASH**

The incomparable blend of Luscious  
Sun-ripe Orange Juice and the tang of  
Refreshing Lemon Juice

**OR-LEM LTD., SOUTHAMPTON**

**CANISTERS LTD**

*Invite Inquiries for*

**SPIRALLY WOUND  
CARDBOARD TUBES**  
up to 1' wall

**POSTAL TUBES AND  
TOILET ROLL CENTRES**  
also **COMPOSITE DRUMS**

**FIR ST. WORKS**  
Heywood, Nr. Manchester



# The Eire Market

for

## Pharmaceutical & Toilet Preparations and Kindred Products

Fassett & Johnson (Ireland) Ltd. have completed arrangements to expand their Marketing Organization in Eire, and now invite enquiries—in confidence—from manufacturers who wish to develop the Eire market.

This invitation is particularly extended to the manufacturers of Pharmaceutical and Toilet Preparations of high quality which can properly take their place alongside the internationally known products that Fassett & Johnson Ltd. have been privileged to serve for more than 60 years.

*Please address enquiries, in the first instance, to :-*

**FASSETT & JOHNSON  
(Ireland) LTD.**

**6 & 7 CROW STREET - DUBLIN**

**Phone : 71112**

**Grams : 'Plasters, Dublin'**

# Firm Favourites *with all the family*

Every woman wants bathtime luxury and day long freshness—sell her delicately perfumed mildly medicated Cuticura Soap and Talcum Powder. Many of your customers have a "problem skin"—Cuticura Ointment is the perfect answer.

Men customers are won by the smooth comfort of Cuticura mildly medicated Shaving Stick, in smart plastic container, and will return again and again for refills.

Baby loves the soothing comfort of mildly medicated Cuticura Soap, Talcum, Ointment. Recommend Cuticura for chafing and nappy rash, and convince all careful mothers that nothing else will do for baby's tender precious skin.

**Cuticura**  
MEDICATED & TOILET  
SOAP • OINTMENT • TALCUM • SHAVING STICK

## WISE CHEMISTS STOCK AND DISPLAY

THIS WIDELY ADVERTISED FAMILY RANGE—NOW IN ATTRACTIVE DISPLAY OUTERS

*British Distributors:* NEWBERRY & PHILLIPS LTD., 203 Victoria House, Southampton Row, London, W.C.1. Phone: HOL 1564  
*Manufacturers:* POTTER DRUG & CHEMICAL CORPORATION, 205-207 Victoria House, Southampton Row, London, W.C.1.

*BUY and SELL only the*  
**3 Elegan** HUMAN HAIR NETS

**SUPERB**

**TIGHT EDGE**

**STAR**

**ASSOCIATE YOUR SHOP WITH THE Elegan NATIONAL ADVERTISING TO TEN MILLION WOMEN EACH MONTH**

THE "Elegan" Hair Net National Advertising Campaign is promoting an ever-increasing flow of business into the shops of "Elegan" Stockists. So DON'T DISAPPOINT YOUR CUSTOMERS; display the "Elegan" Window and Counter Sales Aids and let them see that you too are a stockist of "Elegan" Human Hair Nets.

**Place your order NOW:—**

**ELEGAN HUMAN HAIR NETS**

ELEGAN HOUSE, 8-12 BROADWICK STREET, LONDON, W.1

Telephone: GERrard 5066 (5 lines)  
 or through your own wholesaler.

and at LEEDS, 11 York Place. Telephone: LEEDS 23464  
 SAMPLES on REQUEST to NEW stockists

**PRICES FOR ALL SHADES**  
 (except Grey or White)

**ELEGAN 'SUPERB'**

**72/- PER GROSS**

**ELEGAN 'TIGHT EDGE'**

**48/- PER GROSS**

**ELEGAN 'STAR'**

**30/- PER GROSS**

*Plus Purchase Tax*

# THIS WINTER 426 MILLION ADVERTISEMENTS LIKE THESE *will move stocks so fast they will need watching*

Winter brings awkward twinges.... You can offer safe and quick relief with SLOAN'S. Your Sales go on all the year round, but they will jump now — how are your SLOAN'S stocks?

Retail Price..... 2/6 per bottle (Including Tax)

List Price..... 17/6 per dozen }  
6 dozen Price..... 16/9 per dozen }  
12 dozen Price..... 16/3 per dozen } @ 5/10 per dozen  
The prices per dozen apply to Retail Pharmacists only.

**DR. EARL S. SLOAN LTD.,**  
POWER ROAD  
LONDON, W.4



## VULFIX SERVICE SHAVING BRUSHES

Obtainable through all wholesalers

Each Brush is a quality article and carries a two-year guarantee. Only pure bristles are used, and these well made brushes are certain to find the popular market.

Retail at 4/6, 6/9, 7/6, 9/6,  
12/3, 12/6 and 21/- each



THE BRUSH WITH THE  
TWO YEARS GUARANTEE

**VULFIX "Service" BRUSHES**  
PURE BRISTLE

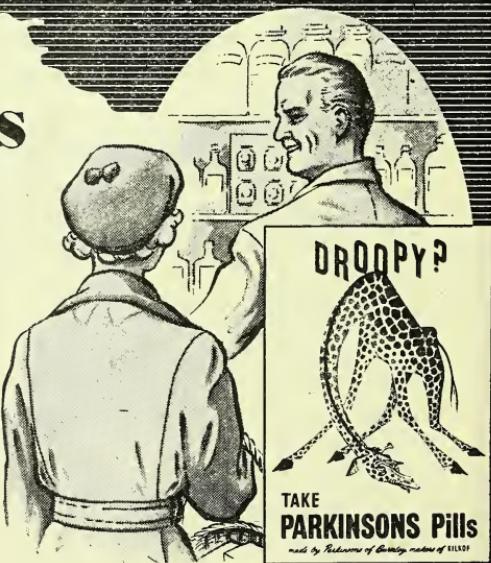
THE PROGRESS SHAVING BRUSH CO. LTD.

Mottram Street, Stockport Phone: STOCKport 2147 • 49 Leadenhall Street, London, E.C.3 Phone: ROYal 2857

“A bottle of  
**PARKINSONS  
PILLS** please”

Do make quite certain that you can supply what the customer asks for. And people are always asking for Parkinsons Pills—just as they ask for Kilkof during the cough season.

The new “Droopy” National advertising campaign will give fresh impetus to their demand. Give them Parkinsons, satisfy them, and profit from repeat sales.



**PARKINSONS LTD. MANUFACTURING CHEMISTS, BURNLEY**



# CIMLAC GAUZE

## COMPOUND AMINACRINE TULLE

CONFORMING TO THE SPECIFICATION  
FOR COMPOUND AMINACRINE TULLE  
OF THE DRUG TARIFF PUBLISHED BY  
THE MINISTRY OF HEALTH.

**1st OCTOBER, 1951**

On and after 1st October, 1951 the Ministry of Health will include Compound Aminacrine Tulle in the Drug Tariff and from this date prescriptions for Cimlac Gauze on Form E.C.10 may be accepted.

# CIMLAC GAUZE

Full page announcements will appear for three consecutive weeks in the leading Medical Journals. All General Practitioners, Surgeons and Hospital Pharmacists will be separately advised through the post.

### PRESCRIPTION PACK

Cartons of 10 pieces ... ... ... ...  $3\frac{1}{2}'' \times 3\frac{1}{2}''$

Each piece individually packed in heat sealed, cellulose film envelopes with full directions for use.

Trade Price 40/- per dozen cartons — Exempt Tax.

### HOSPITAL PACK

Aluminium Boxes—24 pieces ... ... ...  $3\frac{1}{2}'' \times 3\frac{1}{2}''$

Trade Price: 78/- per dozen boxes — Exempt Tax

Please address enquiries to:—

MEDICAL DEPARTMENT, CALMIC LIMITED, CREWE HALL, CREWE  
TELEPHONE: CREWE 3251 (5 lines)

# Telling millions

**Zoflora**  
Perfumed DISINFECTANT

The stale odour of tobacco烟 is quickly  
removed by Zoflora—a disinfectant  
especially prepared for the home. Sprays Zoflora in  
rooms, curtains and uphol-  
steries, on walls, floors, and  
ceilings, and even in the air.

**Zoflora**  
Perfumed DISINFECTANT

A pleasant atmosphere refreshes the mind  
and body after the day. Sprays Zoflora in bed.

**Zoflora**  
Perfumed DISINFECTANT

Zoflora cleans and sweetens the air  
to patients and horses alike.

**Zoflora**  
Perfumed DISINFECTANT

is a powerful antiseptic which dispels  
unpleasant odours and imparts its own  
delicate perfume.

From your chemist  
or direct from the makers:  
THORNTON & ROSS LTD.  
HUDDERSFIELD.

**Zoflora**  
Perfumed DISINFECTANT

its powerful antiseptic properties  
dispel unpleasant odours and leave  
a safer, cleaner atmosphere.

From your chemist  
or direct from the makers:  
THORNTON & ROSS LTD.  
HUDDERSFIELD.

## about **Zoflora** Perfumed DISINFECTANT

Zoflora, the spray-disinfectant, is now advertised in popular "home" magazines with an estimated readership of 16,300,000. This is making custom for you, because each advertisement directs housewives to their chemist.

May we send you a trial order and show material?

RETAIL: 2/6 per bottle

Complete Spraying Outfits, 12/6 and 30/-  
Usual Trade Discounts

THORNTON & ROSS  
LIMITED  
LINTHWAITE LABORATORIES HUDDERSFIELD

# askit

THE POWDER WITH A REPUTATION

## For over 30 years Scotland's leading Proprietary Medicine

for the speedy relief of  
Headaches, Neuralgia, Neuritis  
and all Nerve Pains.

Manufactured by

ASKIT LTD MANUFACTURING CHEMISTS  
GLASGOW N

and stocked by  
ALL LEADING WHOLESALE HOUSES

Ammonium Carbonate

Chalk—Precipitated and Prepared

Cresylic Acid

Coal Tar Disinfectants

Emulsifiers

Magnesium Carbonate (Pond.)

Synthetic Detergents

Naphthaline

Toluene, Xylene

Zinc Oxide

DUNN BROTHERS'

SUCCRS. LTD.

I BOOTH STREET, MANCHESTER

Established 75 years

Whenever you use your hands  
you need **HINDS**  
to keep them lovely

## Hinds Honey and Almond cream

SO SOOTHING \* SMOOTHING \* ECONOMICAL

In handbag size tubes—1/3: also in various sized flasks and in squeeze bottles.  
and enriched with wonder-working lanolin!

### THIS ADVERTISEMENT IS HABIT-FORMING

PERSUASIVE advertisements like this are building a great new market for HINDS. More than ever, daughters are following their mothers — earning the one sure way to real hand beauty — forming the *habit* of using HINDS honey and almond cream whenever they've used their hands. HINDS advertisements are there behind you, making HINDS, the hand cream that profits you

most, the one that's easiest to sell. Make it simple for yourself to sell a record quantity this year. Just use the attractive new display stand to back up the fine advertising that will reach an audience of **SEVENTY-NINE AND A HALF MILLION IN 1951!**



## Hinds Honey and Almond cream

THE HAND CREAM THAT'S ON SPECIAL OFFER ALL THE TIME

**The Seven major Vitamins are  
presented together in**

# 7 **'PROTOVITE'**

**Vitamin A**



**Vitamin D**



**Vitamin E**



**Vitamin B<sub>1</sub>**



**Vitamin B<sub>2</sub>**



**Vitamin C**



**Nicotinamide**

The vitamins are indispensable factors in nutrition. They act as biological catalysts and, as such, are essential in promoting growth and maintaining health. In 'Protovite,' four water-soluble and three fat-soluble vitamins are present in sufficient and well balanced quantity to provide a satisfactory dietary supplement in childhood and in old age. The polyvitamin preparation 'Protovite' is issued for oral use in tablet form and as drops.

#### **Tablets**

Sugar-coated to facilitate administration. Doses range from 1—4 tablets a day but may be increased in accordance with patients' needs. 'Protovite' tablets are issued in packings of 40, 100, 500 and 1,000.

#### **Drops**

Water-miscible, stable vitamin supplement. Ideal for infants, especially bottle-fed babies, but useful also in the treatment of older children and of adult patients who find difficulty in taking tablets. The average dose for children is a half c.c. (or 12 drops) starting with 4 to 6 drops a day, taken in milk or any other fluid considered suitable. 'Protovite' drops are supplied in bottles of 15 c.c. (with dropper).

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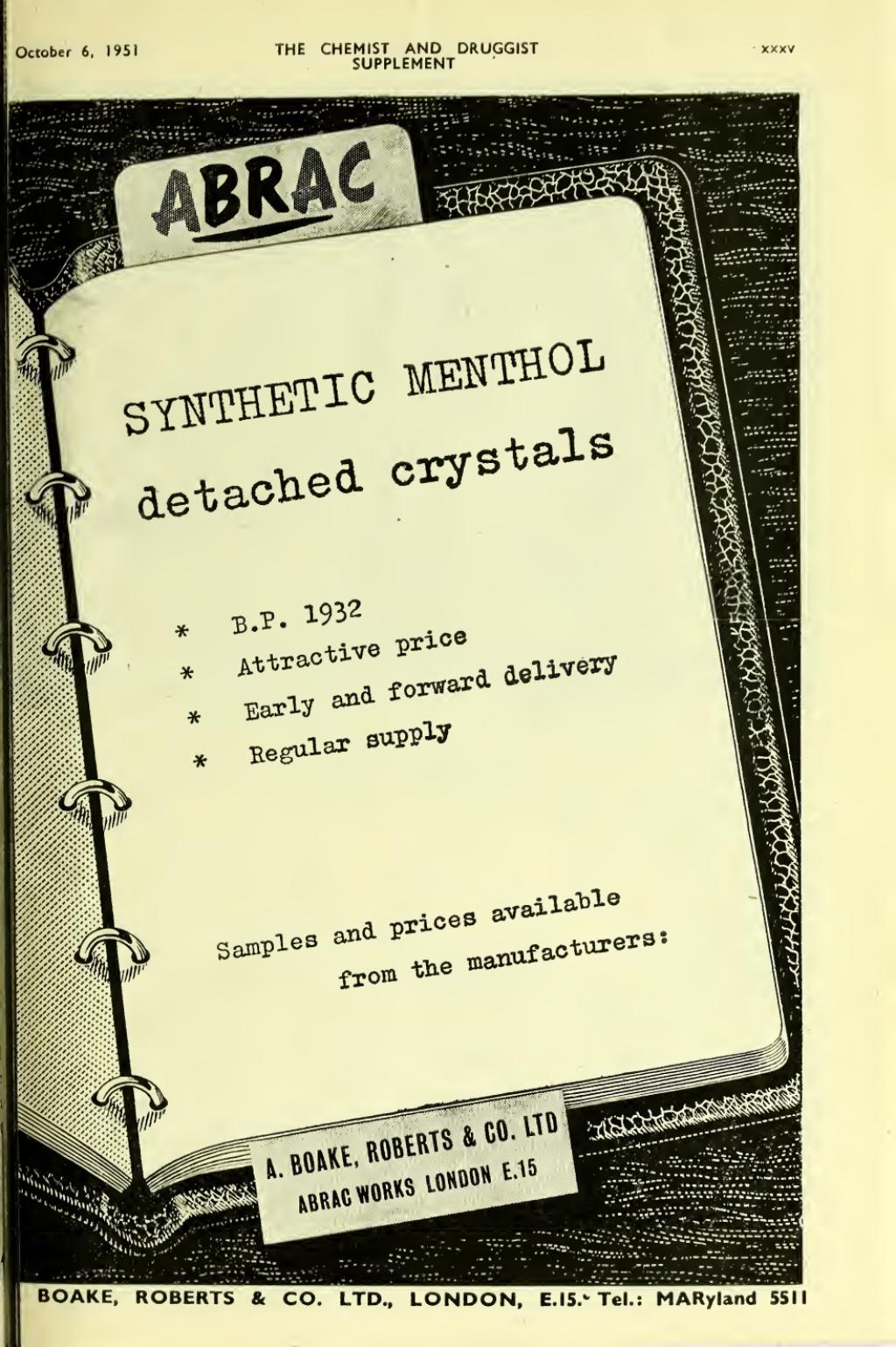
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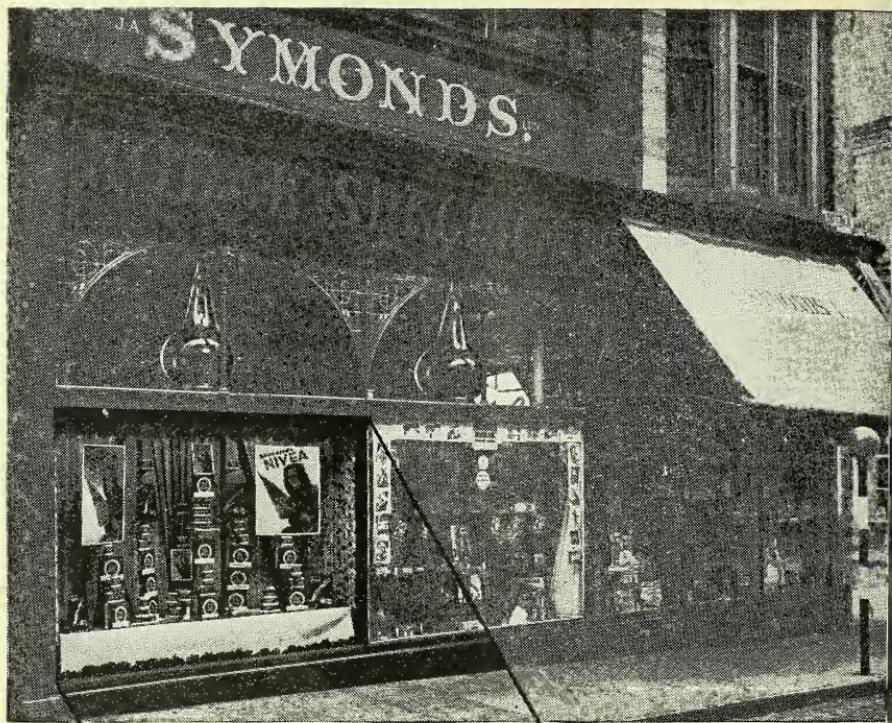
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